

CONTRACTING FOR A & E SERVICES

TEXT REFERENCE

FEDERAL ACQUISITION INSTITUTE

CURRICULUM OF PROCUREMENT
TRAINING COURSES

CURRENT THROUGH
FAC 90-20

**OFFICE OF ACQUISITION POLICY
GENERAL SERVICES ADMINISTRATION**

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INTRODUCTION

THE FEDERAL ACQUISITION INSTITUTE (FAI) CURRICULUM

Courses

In FY91, the FAI began providing acquisition trainers and educators with instructional materials for a new Contract Management curriculum. This curriculum includes the following courses, listed in a recommended order of attendance.

1. Introduction to Contracting*
2. Procurement Planning*
3. Small Purchases***
4. Contracting By Sealed Bidding*
5. Price Analysis*
6. Contracting By Negotiation*
7. Cost Analysis*
8. Contract Negotiation Techniques**
9. Contract Administration*
10. Contract Law
11. Types of Contracts
12. Source Selection*
13. Advanced Negotiation Procedures***
14. Advanced Cost and Price Analysis**
15. Advanced Contract Administration**
16. Termination/Claims

Specialized Courses

(in alphabetical order)

1. Acquisition of FIP Resources**
2. Contracting for Architect/Engineer Services*
3. Construction Contracting*
4. Managing the Contracting Activity
5. Contracting Officer Technical Representative***

Offerors

Each of the above courses will be offered by the GSA Interagency Training Center. Other Federal acquisition trainers and educators are incorporating FAI instructional materials into their respective curricula (perhaps under different course titles than the above).

* Currently available (as of 4 / 94)

** Projected to be available in 1994

*** Projected to be available in 1995

INTRODUCTION

PURPOSE OF THE FAI CURRICULUM

Help you accomplish the goals of the Federal Acquisition Process

As a Contract Specialist, your primary goals are to:

1. Obtain the optimum market response to requirements for supplies and services, in terms of:
 - Quality.
 - Timeliness.
 - Price.

While -

- Accomplishing socioeconomic objectives.
- Minimizing business and technical risks.
- Maximizing competition.
- Maintaining integrity.

2. Assure that purchased supplies and services are:
 - Delivered or performed when and where specified in the contract.
 - Acceptable, in terms of conforming to the contract's specifications or statement of work.
 - Promptly and properly reimbursed.
 - Furnished in compliance with other terms and conditions of the contract.

Help you perform your duties

To accomplish these goals, Contract Specialists perform more than 78 principal duties. Collectively, these duties constitute the Federal acquisition process. Exhibit I-1 maps the acquisition process and relates each duty to the overall process. The FAI curricula has been designed to systematically develop your skill at every duty in Exhibit I-1, in the context of accomplishing the overall goals of the Federal Acquisition Process.

Your challenge

Your challenge is to become proficient at the duties in Exhibit I-1. Granted, you may presently perform only a subset of the duties. In terms of your career, however, learning the entire range of duties will improve your competitiveness for a great variety of contracting positions, including managerial positions. From the standpoint of the Government, you will be better able to perform any one duty if you have first hand knowledge of how the duty affects, and is in turn affected by, the performance of the other duties.

CHARACTERISTICS OF THE FAI CURRICULUM COURSES

- Each course covers specific duties and is designed to provide skill in performing those duties.
- Each course in the curriculum will build on the skills and knowledge taught in prior courses.
- Generally, there is a separate lesson for each duty, with a corresponding chapter in the Text/Reference.
- In most cases, the instructor will introduce the duty, its purpose (learning objective), applicable policies, and standards for performance.
- Next, the instructor will walk you through a flowchart of the steps in performing the duty.
- You will perform selected steps in-class, using case studies and other such exercises.
- You will be tested.
- For each duty, the Text/Reference will serve as a desk reference, with flowcharts, steps in performance, and job aids.
- Practicums (i.e., self-instructional exercises) will be available at a later date to reinforce the in-class learning back on-the-job.
- Specialized courses will not reteach the basic acquisition process but will rather concentrate on the unique regulations and procedures for procuring FIP Resources, A&E Services, or Construction.

INTRODUCTION

PRESOLICITATION PHASE

Determination of Need	Initiating the Procurement	Analysis of Requirement	Sourcing
Determining Needs 1. Forecasting Requirements 2. Acquisition Planning	Processing the PR 3. Purchase Requests 4. Funding Market Research 5. Market Research	Analyzing Requirements 6. Specifications 7. Statements of Work 8. Services	Extent of Competition 9. Sources 10. Set-Asides 11. 8(a) Procurements 12. Competition Requirements 13. Unsolicited Proposals Selection Factors 14. Lease vs. Purchase 15. Price Related Factors 16. Technical Evaluation Factors Method and Plan for the Procurement 17. Method of Procurement 18. Procurement Planning

SOLICITATION-AWARD PHASE

Solicitation	Evaluation—Sealed Bidding	Evaluation—Negotiation	Award
Terms and Conditions 19. Contract Types 20. Letter Contracts 21. Contract Financing 22. Use of Government Property and Supply Sources 23. Need For Bonds 24. Solicitation Preparation Soliciting Offers 25. Publicizing Proposed Procurements 26. Preaward Inquiries 27. Prebid/Preproposal Conferences 28. Amending Solicitations 29. Cancelling Solicitations	Bid Evaluation 30. Processing Bids 31. Bid Acceptance Periods 32. Late Offers 33. Bid Prices 34. Responsiveness	Proposal Evaluation 35. Processing Proposals 36. Technical Evaluation 37. Price Objectives 38. Cost and Pricing Data 39. Audits 40. Cost Analysis 41. Evaluating Other Terms and Conditions 42. Competitive Range Discussions 43. Factfinding 44. Negotiation Strategy 45. Conducting Negotiations	Selection for Award 46. Mistakes in Offers 47. Responsibility 48. Subcontracting Requirements 49. Preparing Awards Executing Awards 50. Award 51. Debriefing Protests 52. Protests Fraud and Exclusion 53. Fraud and Exclusion

Exhibit I-1. Federal Acquisition Process Chart.

POST-AWARD ADMINISTRATION PHASE

Start-Up	Quality Assurance	Payment and Accounting	Closeout
Planning 54. Contract Administration Planning 55. Post-Award Orientations Ordering 56. Ordering Against Contracts and Agreements Subcontracting 57. Consent to Subcontracts	Monitoring and Problem Solving 58. Monitoring, Inspection, and Acceptance 59. Delays 60. Stop Work 61. Remedies Property 62. Property Administration Reporting Performance Problems 63. Reporting Performance Problems	Payment 64. Limitation of Costs 65. Payment 66. Unallowable Costs 67. Assignment of Claims 68. Collecting Contractor Debts 69. Progress Payments 70. Price and Fee Adjustments Accounting 71. Accounting and Cost Estimating Systems 72. Cost Accounting Standards 73. Defective Pricing	Closeout 74. Closeout

POST-AWARD ADMINISTRATION PHASE (Con't)

Contract Modification	Termination	Claims	
Modifications/Options 75. Contract Modifications	Termination 76. Termination 77. Bonds	Claims 78. Claims	

Exhibit I-1. Federal Acquisition Process Chart (continued)

INTRODUCTION

OVERVIEW OF CONTRACTING FOR A-E SERVICES

Duties

In this course, you will be required to:

- Forecast Requirements for A-E Services
- Determine if Brooks Act Applies
- Choose Contract Type and Methodology
- Develop an Acquisition Plan
- Develop Scope of Work
- Develop Selection Criteria
- Synopsise
- Evaluate SF 254s and SF255s and Select A-E
- Issue RFP
- Prepare for Negotiations
- Determine 6% Fee Limitation
- Award Using SF 252
- Develop Contract Administration Plan
- Invoke Remedies
- Perform Evaluation Using SF 1421

Length

One week (5 days)

Daily Hours

8:00 to 4:30. The time from 3:30 to 4:30 is reserved for reading assignments and/or one on one questions with the instructor. You may leave at 3:30 if necessary, but you are expected to complete all reading assignments.

Who Should Attend

Contract Specialists (GS-9 to GS-11) who have successfully completed:

- Introduction to Contracting,
- Procurement Planning,
- Contracting by Sealed Bidding,
- Contracting by Negotiations,
- Cost Analysis, and
- Basic Contract Administration.

Differences

Architect-engineer contracts require special care and special knowledge to generate, implement, and successfully complete. Each year the Federal Government awards thousands of architect-engineer contracts to the private sector. These contracts are not awarded to firms that have submitted competitive bids for the work, but instead, to firms selected for negotiations because of their demonstrated

- professional qualifications,
- specialized experience in the type of work required,
- capacity to perform,
- past performance,
- proximity to the geographical areas of the project, and
- other appropriate evaluation criteria, exclusive of price.

The A-E contracting procedures were established with the passage of the Brooks Act, Public Law 92-582. Although the procedures are specifically defined, the application of objective judgment in evaluating a candidate firm's qualifications against published selection criteria, is required.

Because the procedures for A-E contracting are different, it is necessary for those who are involved in A-E contracting to obtain specialized training in order to effectively do your job. This course will provide you with

- comprehensive overview, beginning with an understanding of how the process evolved;
- roadmap of the planning process, including the reasons why careful planning is necessary and the decisions that are made that will directly affect the outcome of the product;
- important aspects such as type of contract and the method of contracting, providing pros and cons of each;
- thorough review and analysis of the selection process, beginning with the CBD announcement to ultimately selecting a contractor; and
- contract administration process in the post-award phase including a thorough understanding of the clauses, and problem solving.

This course will focus on the differences in Contracting for A-E Services and will not teach you the basics of Procurement Planning, Sealed Bidding, Negotiations, or Basic Contract Administration.

INTRODUCTION

USING THE TEXT / REFERENCE IN THE CLASSROOM

Performance-Oriented	This Text/Reference and the related classroom materials are performance-oriented. The Text/Reference provides a step by step guide to performing the duties. In the classroom, you will have opportunities to practice performance of the duties - using the Text/Reference as your guide - through the use of such instructional techniques as interactive viewgraphs and case studies.
Interactive Viewgraphs	An interactive viewgraph is a slide on the overhead projector that requires a response from the class. For example, if the instructor is showing a decision table with the "if" side filled in, the "then" side would be empty and you would help fill out the answers. Or perhaps the slide asks a particular question about a list of conditions shown on the slide. Most viewgraphs are represented in the Text/Reference as an Exhibit, although usually shorter in length.
Case Studies	Case studies are written as scenarios or stories about particular procurement situations. There are several questions that follow the scenarios relating to the case and the particular lesson. Sometimes you have to use information in the Text/Reference to complete a case study.
Reading Assignments	There will be an in-class lesson for every chapter in this Text/Reference. You are responsible for assigned readings from the chapter. You will spend minimal time listening to lectures. Our philosophy is that you learn best by doing the tasks under simulated conditions.
Testing	There will be a closed book written test. It will contain approximately 50 questions and will be administered on the last day of class. The test should take no more than 75 minutes. All test questions were developed to verify the learning acquired from the course learning objectives which appear on the second page of each chapter in the Text/Reference.

USING THE TEXT / REFERENCE AT YOUR JOB SITE

Ease of Use

The Text/Reference was developed to be used at your job site as well as in the classroom. Its step by step approach, FAR references, structured writing, and index are all designed for the easy and quick retrieval of information about the contracting process. Each Text/Reference is "dated" by indicating which FAC of the FAR system it is current through. This lets you know exactly how up to date it is. You may contact the FAI for updates or annotate your own copy as FAR policy changes.

FAR References

Most FAR references are boxed and appear in the left column opposite related text. Where appropriate FAR references also appear under the title of Exhibits.

The book has not yet been written that does not contain some typos, incorrect citations, missing information, or technical inaccuracies. If this book is helpful to you, and you would like to help make it better, please send any corrections you recommend to the FAI in care of GSA-VF, 18th and F Sts., NW, Washington, DC, 20405.

The training materials used in this course were developed by the Federal Acquisition Institute using the

- Macintosh family of computers,
- Aldus PageMaker 5.0 for the Text/Reference,
- MicroSoft Word 5.1 for the Class Exercises and Instructor Guide, and
- MicroSoft PowerPoint 3.0 for the Viewgraphs.

INTRODUCTION

CHAPTER 1

A-E PROCEDURES

HISTORY OF A-E CONTRACTING

“Why is it useful to understand the background of A-E contracting procedures?” Jim thought as he glanced at the blackboard while strolling into the classroom. Contracting procedures are all basically the same. We all know that you have to issue solicitations, obtain competition, and award to the lowest offeror.

He had read his assignment the night before coming to class, and it didn’t say anything about the history of A-E procedures. Yet, these were the words that the instructor had written on the board. “Sounds like boring information to me,” Jim thought to himself. “Oh, well, maybe I can sleep through it. I can’t see what this background stuff has to do with what we are doing today back at the office.”

Do you agree with Jim?

What is different about contracting for A-E services?

COURSE LEARNING OBJECTIVES

At the completion of this chapter, you will be able to:

Overall: Describe events, including the legislative history, that led up to our current A-E contracting procedures which must be followed as a result of the passage of the Brooks Act.

Individual:

1.1 Describe difference between contracting for regular services and that of A-E services.

Describe basic premise of Government procurement:

- Minimum need.
- Maximum competition.
- Open market.

1.2 Describe basic premise of contracting for professional services:

- Professionals selected for judgement and expertise.
- Price not a consideration.
- “Traditional method.”
- Other methods.

1.3 Describe legislative history leading to the Brooks Act:

- Public Works Act of 1939.
- Federal Property and Administrative Services Act of 1949.
- Brooks Act of 1972.

1.4 Forecast requirements for professional services.

INTRODUCTION TO A-E PROCEDURES

Contract Specialist Responsibility

As a contract specialist, you may not always play a major role in all of the decisions and procedures that transpire in selecting an A-E and issuing a contract. For the most part, the Contracting Officer will be the one playing a major role in the process. However, if you are working in an office where A-E contracts are issued and administered, you must be knowledgeable of all facets relating to the process in order to do a good job in your A-E contractual duties.

Selection Procedures

FAR 6.102(d)(1)

If you are new to the A-E contracting environment, you may be surprised to learn that A-E procedures are considered “competitive” as described by the Competition in Contracting Act of 1984. What is more, the A-E is selected based on its ability and expertise, rather than on price. Yet, the process is still considered a competitive procurement.

Agency Policy

Agency policy plays an important role in the methodology of issuing and administering A-E contracts:

1. Traditional method of project execution - issue lineal contracts, the first being the A-E design contract, followed by the construction contract, both of which are managed and administered by the Government.
2. Contractor Management concept - issue a separate contract to perform oversight on the A-E contract and/or the construction contract.
3. Design-build concept in which a single contractor provides both the project design and the construction.
4. Turnkey which is similar to design-build except additional services are added such as project financing, site selection, or facility operation.

Brooks Act

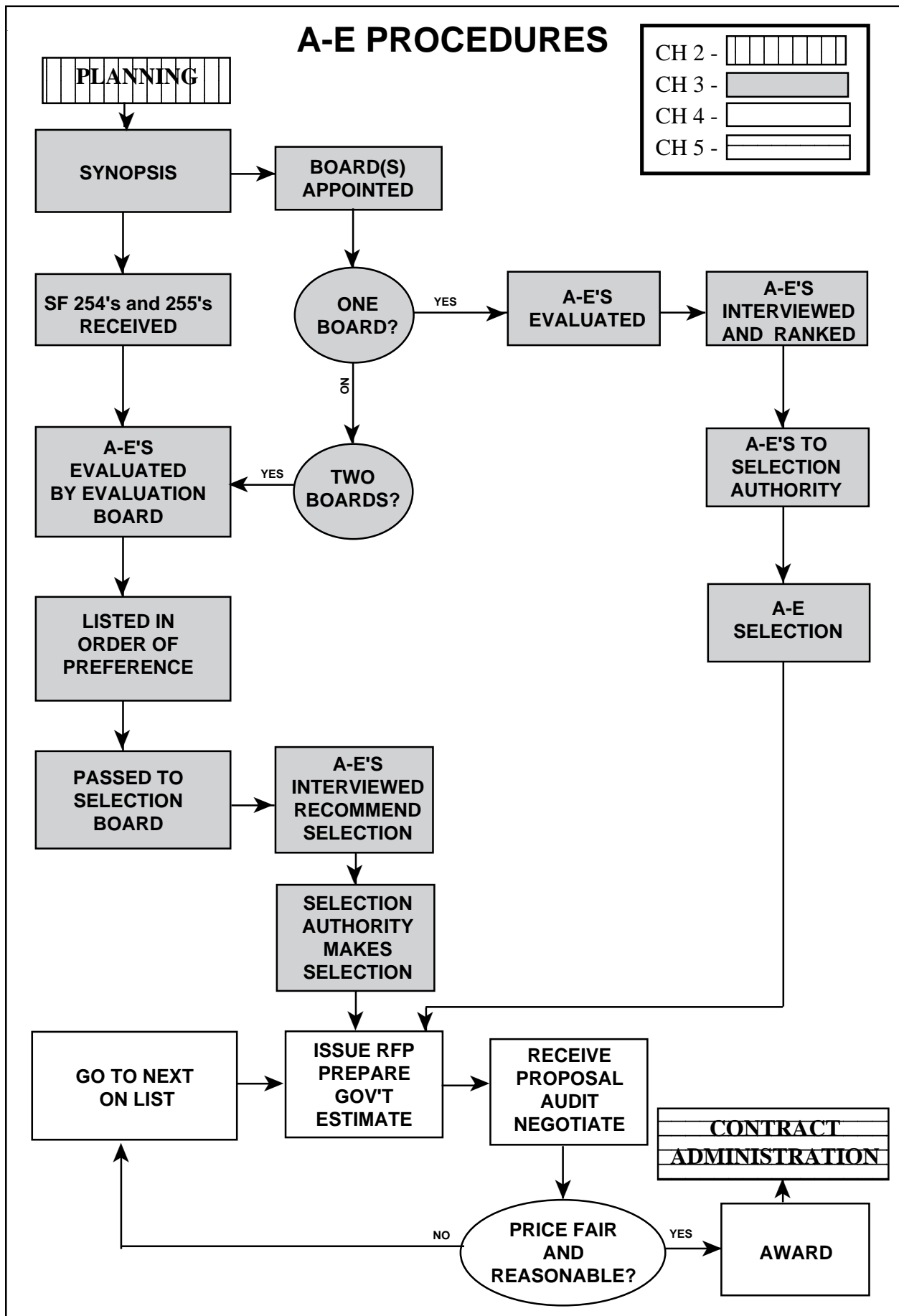
Public Law 92-582 was enacted in 1972 and named after Congressman Jack Brooks, the sponsor of the legislation.

Steps in Performance

An overview of the Brooks Act A-E procedures is charted on the next page.

A-E PROCEDURES

CH 2 -	<div></div>
CH 3 -	<div></div>
CH 4 -	<div></div>
CH 5 -	<div></div>



A-E PROCEDURES

1.1 Differences in A-E Contracting

Traditionally, a construction contract is awarded after competitive bidding which is based on a detailed design of the project. Thus, the design effort is treated as an independent part of the construction process and is completed before the construction contractor is selected.

The major advantage of a detailed design is that it permits competitive bidding for the construction by providing a firm baseline from which all bidders can calculate their bids.

Contracting for construction, therefore, conforms to the basic premise of all Government contracting, namely:

- Minimum needs of the Government,
- Maximum competition, and
- Open market.

Government construction projects comprise a significant market share, in total dollars, of the construction industry as a whole. Building construction is characterized by a wide variation in the types of projects. Virtually every project is unique. This means that each project is specifically designed to fit a need.

The Government, in designing projects ranging from small office buildings which are valued at less than \$1 million to large skyscrapers valued well over \$100 million, largely relies on contracting for design services from the private sector. This has not always been so, as the Government used to design many projects “**in-house**” with its own employees.

Each year the Government awards thousands of architect-engineer contracts worth hundreds of millions of dollars. These contracts are awarded to firms that have submitted “competitive résumés” outlining their qualifications to do the work, without having to submit competitive prices. This unique process allows the Government to award a contract to the A-E firm which has:

- demonstrated professional qualifications,
- specialized experience in the type of work required,
- capacity to perform,
- quality past performance,
- proximity to the geographical area of the project, and
- other appropriate evaluation criteria, all exclusive of price.

A-E Award Criteria

A-E PROCEDURES

The question can now be asked:

“Does this unique way of contracting conform to the basic premise of all Government contracting as stated above?”

The answer is “No.” In A-E selection, we are not looking for the minimum requirement. Per the Brooks Act, we require a superior design product. This is the fundamental difference between A-E and other forms of Government procurement. See Exhibit 1-1 for a listing of major differences in A-E contracting.

DIFFERENCES IN A-E CONTRACTING	
CONTRACT ACTION	A-E DIFFERENCE
Armed Serv. Proc./Fed. Property Ad. Serv. Acts	Brooks Act
Wage Rates	Not Used
Required Sources & Set-asides	Set-asides only
CBD	Includes Scope of Work & Note 24
Technical Proposal	Must be submitted on SF 254 and SF 255
Evaluation by Contract Specialist and/or Panel	Evaluation by Board and May Use Two
Sealed Bidding & Negotiations	Negotiated only
UCF for RFP or IFB	RFP only, Exempt from UCF
Bonding in Construction	None Required
Market or C & P Data Used to Get Fair Prices	Cost/Pricing Data Only Used, 6% Design Fee
Award Selection on Price & Technical	Selection on Technical Only
Award using SF 33 or SF 26	Award using SF 252
Warranties	Design within Funding Limit, Respon. of A-E
T for C & T for D Clauses	Single Termination Clause
Performance Evaluation Optional	Perf. Evaluations Mandated Using SF 1421

Exhibit 1-1

Once the A-E firm has been selected and a contract awarded, the concern for the Government's minimum need resurfaces. We task the A-E firm to design a facility which meets the minimum need. In this process, the A-E will use Guide Specifications as much as possible to:

- Prevent duplication of work,
- Provide standardization, and
- Discourage "gold plating."

1.2 Procurement of Professional Services

The term "architect-engineer" (A-E) is sometimes confusing because it seems to be describing two different professional disciplines. Though the two disciplines are different, the term A-E usually refers to firms who perform services possessing qualifications common to both. Therefore, in practice, the A-E may be commonly referred to by either term.

FAR 22.1102

Architects and Engineers are professional employees as they have "acquired professional knowledge through prolonged study."

Architects

Architects are the prime professional on most building projects. They are required to be licensed by the individual states where they practice.* Licensing is intended to ensure that all architects:

- Have demonstrated a basic competence, and
- Are capable of practicing with due regard for the public's health, safety, and welfare.

Architects may do business as:

- Sole proprietors,
- Partnerships, or
- Corporations.

However, at least one licensed individual must assume direct responsibility for the project.

Engineers

Engineers are also licensed by the states. They are generally expert in the use of mathematical and engineering analysis to design specialized components of a project, such as:

- | | | |
|---------------|--------------------|--------------|
| • Heating | • Air Conditioning | • Structural |
| • Ventilating | • Electrical | • Plumbing |

* However, projects may be outside the state, if permitted.

A-E PROCEDURES

Consultants

There are others who may, or may not be licensed, commonly called consultants. They may be specialists in such disciplines as:

- Lighting
- Acoustics
- Elevators
- Theater design, etc.

Engineers and consultants may be hired by A-E firms to assist in the design of a project. The amount of assistance needed depends on the availability of A-E in-house resources.

Brooks Act

The Brooks Act actually amends an earlier Public Law, the Federal Property and Administrative Services Act of 1949 by adding on TITLE IX, Selection of Architects and Engineers.

As in most Public Laws, the Brooks Act starts out by stating overall policy which is appears in Exhibit 1-2.

POLICY: Sec. 902 of PL 92-582

The Congress hereby declares it to be the policy of the Federal Government to publicly announce all requirements for architectural and engineering services, and to negotiate contracts for architectural and engineering services on the basis of demonstrated competence and qualification for the type of professional services required and at fair and reasonable prices.

Exhibit 1-2

The law goes on to define architectural and engineering services to include

“professional services of an architectural or engineering nature, as well as incidental services that members of these professions and those in their employ may logically or justifiably perform.” (See Chapter 2.1.)

FAR 36.702(b)

The law continues by stating that all agencies shall encourage A-E firms

“engaged in the lawful practice of their professions”

SF 254

to submit an annual statement of their qualifications. This statement is to be made on SF 254, Architect-Engineer and Related Services Questionnaire. (See Chapter 2.3 for copy of SF 254.)

Agencies SHALL solicit and maintain the data received from A-E firms.

SF 255

When a specific project is identified, interested A-E firms must then submit a SF 255, Architect-Engineer and Related Services Questionnaire for Specific Project. (See Chapter 2.3 for copy of SF 255.)

If the SF 254 is considered a résumé, then the SF 255 is a specific job application made in response to published selection criteria.

CBD

Unlike in other proposed procurements, the Commerce Business Daily (CBD) announcement actually becomes part of the A-E selection process. This occurs because the specific selection criteria for projects are only found in the CBD announcement.

Agencies must consider all firms who respond to the CBD announcement by submitting a SF 254 and a SF 255 (if they are not already on file). A minimum 30 day waiting period for response is also required. You may identify announcements for A-E services by looking for Classification **Code “C” in Block 6** of the CBD synopsis.

FAR 5.207(g)(1)

A-E PROCEDURES

A-E Contracting Methodologies

There are several methods * of contracting for A-E services which must be considered for use early in the planning phase. The traditional approach will probably be used for most of your requirements.

Traditional

The traditional process is illustrated in Exhibit 1-3. After completion of the design phase, a construction contract is typically awarded as a result of a competitive procurement.

Note that in the traditional general contracting process, the project designer and the general contractor each have a separate contract, both issued by the Government for the same project. However there is no contractual relationship existing between the two.

Advantages

- Procurement of A-E services is accomplished using Brooks Act procedures only.
- A-E design can be obtained while waiting for construction funding.
- Having A-E and construction contractor under different contracts works as a check and balance.

Disadvantages

- Inability of A-E to give reliable budget estimates because of lack of estimating expertise or direct involvement in actual construction results.
- Absence of construction expertise in the design phase that leads to excessively expensive construction materials or building techniques.
- Linear process resulting in distinct phases can lead to long time periods to complete a project.

The designer does not direct the actions of the construction contractor and vice versa. In fact, you will probably find that the typical designer will go out of its way not to direct the general contractor because the designer does not want to take on any liability for the general contractor's actions or performance. However, under Government contracts, the designer must "observe" the put-in-place construction in order to determine that the work is compatible with the contract design and specification.

* See Appendix B for discussion of Indefinite Quantity A-E contracts.

A-E PROCEDURES & TRADITIONAL METHOD

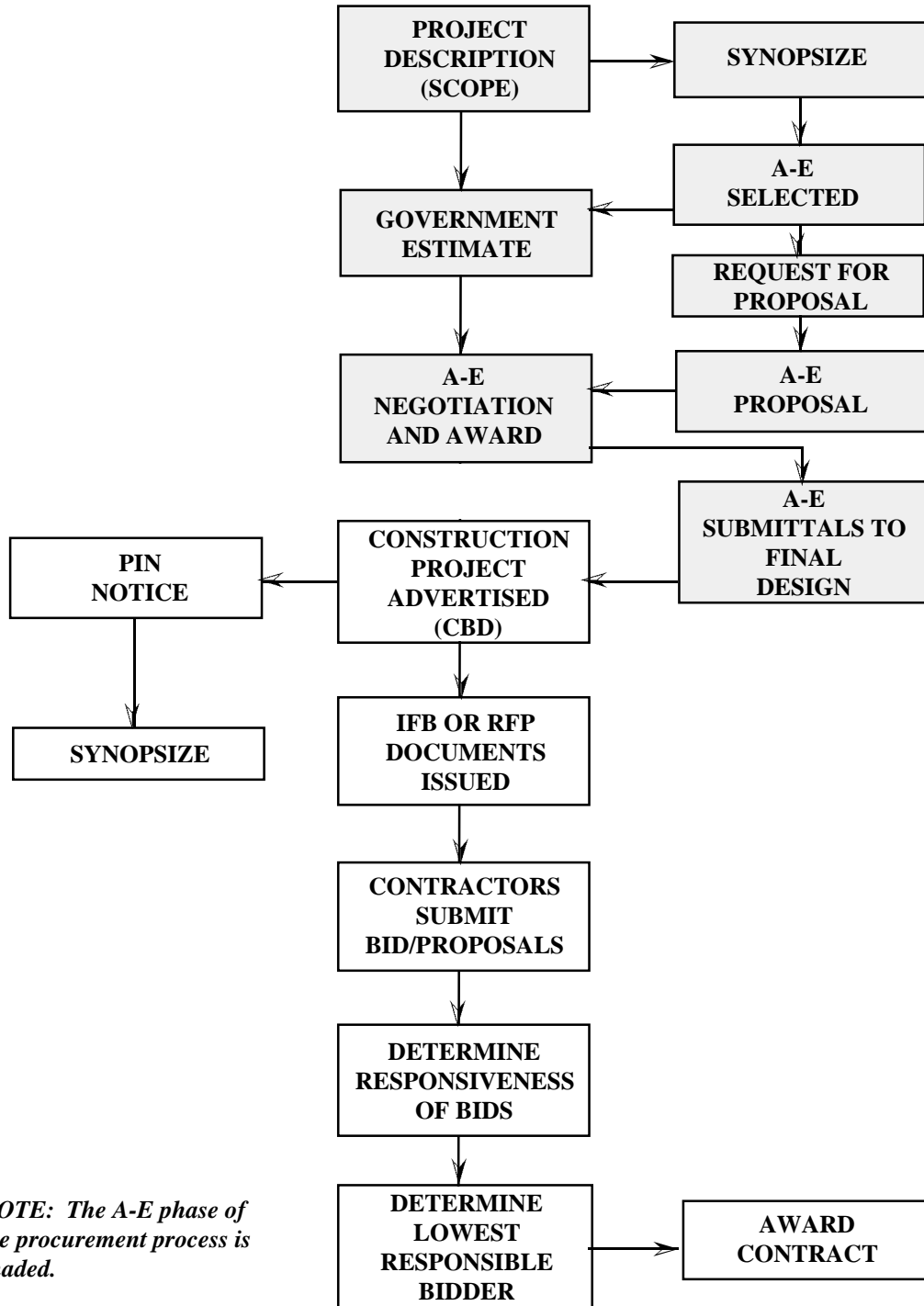


Exhibit 1-3

A-E PROCEDURES

Construction Management

Your agency may have a policy that favors the construction management concept rather than the traditional one. A construction manager is placed under contract (often through source selection) to manage the overall project, in which case the design contract

will be monitored from start to finish to ensure that the A-E makes the best and most efficient use of construction techniques while still remaining within the budget.

The precise role of the construction manager varies greatly from project to project.

It is important for you to distinguish the difference between “construction management” (CM) and “good contractor management:”

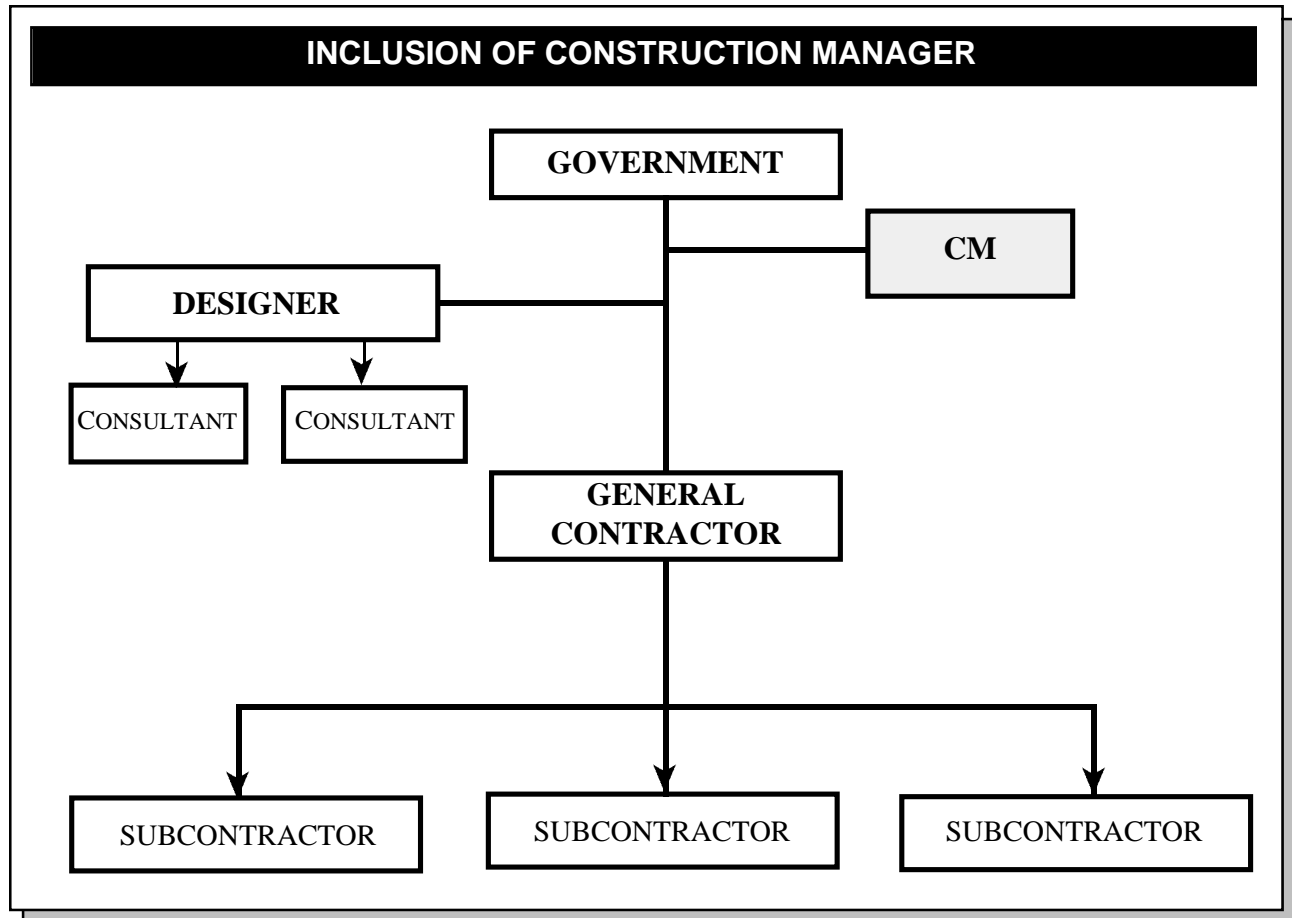
- “CM” is a term describing a management process.
- “Good contract management” is descriptive of how a contract is being managed.

The CM process differs from the traditional method in that there is a layer between the A-E & Construction contractors and the Government. This is illustrated by the shaded box in Exhibit 1-4.

CM means different things to different agencies because it is flexible in its use. General Services Administration (GSA) has defined CM as follows:

“An experienced organization or joint venture under a professional services contract for construction management services, who will work with Public Buildings Service and the A-E from the beginning of design through construction completion. It will furnish the A-E with information and recommendations on construction technology and market conditions to

- insure that the building design stays within the budget,
- control scheduling of design and construction,
- manage the procurement effort,
- superintend and inspect construction of the building, and
- provide a wide range of other related services.”

*Exhibit 1-4*

The role of the construction manager in CM contracts has taken many different forms, with the result that there is no single mode of operation that can be defined as the “construction management method.” The scope of services the CM may provide varies, as you can contract for services that range from minimal project monitoring to total contract management. (Exhibit 1-5 lists some of these services.)

Advantages

- CM has expertises lacking in either A-E or construction contractor. (Such as estimating for A-Es.)
- CM can prevent unacceptable or inefficient management practices to creep into A-E or construction contractor management styles.

A-E PROCEDURES

TYPICAL SERVICES WHICH MAY BE REQUIRED OF A CM		
Design Phase	Preaward Phase	Construction Phase
<p>Submission of Management Plan (over \$1 million)</p> <ul style="list-style-type: none"> - scope - milestones for phases - budget for each phase - identification of consultants - organization chart - duties and authorities - estimate of man-hours <p>Provide office facilities.</p> <p>Recommend special qualification requirements.</p> <p>Assist in preparing CBD notice.</p> <p>Offer technical support during ranking of offers.</p> <p>Submission of progress reports.</p> <p>Brief successful A-E on project.</p> <p>Assist in preparing scope of project.</p> <p>Review cost proposals.</p> <p>Cost estimation of project.</p> <p>Cost evaluation.</p> <p>Project scheduling.</p> <p>Coordination of project documents.</p> <p>Design review.</p> <p>Review submittals.</p> <p>Perform constructability reviews.</p> <p>Advise A-E on availability of construction labor.</p> <p>Advise A-E on cost reducing alternatives.</p> <p>Advise A-E on defects, conflicts, discrepancies, or lack of clarification in documents.</p> <p>Monitor and analyze the building climate.</p> <p>Participate in meetings.</p> <p>Advise the Government of any and all problems.</p> <p>Review all proposals for changes.</p>	<p>Prepare and transmit CBD announcement.</p> <p>Prepare, assemble and submit to the Government the Pre-Invitation Notice.</p> <p>Prepare and submit to the Government the solicitation package.</p> <p>Perform marketing duties.</p> <p>Participate with the Government in prebid conferences.</p> <p>Review all bids, bidder qualifications, and provide recommendation of award.</p>	<p>Arrange and participate in preconstruction conference.</p> <p>Review and recommend approval of construction progress schedule.</p> <p>Monitor progress.</p> <p>Inspection and testing.</p> <p>Recommendations concerning rejection of materials & workmanship.</p> <p>Maintain daily logs.</p> <p>Review progress payment requests.</p> <p>Review all submittals.</p> <p>Monitor design clarifications.</p> <p>Maintain all files.</p> <p>Monitor costs.</p> <p>Monitor labor compliance.</p> <p>Monitor safety compliance.</p> <p>Provide spread sheets.</p> <p>Process correspondence and prepare replies for the contracting officer's signature.</p> <p>Advise the CO of all potential disputes.</p> <p>Testing services.</p> <p>Monitor Buy-American requirement</p> <p>Other one time services which may include:</p> <ul style="list-style-type: none"> - surveys - photographs - expert testimony in court,

Exhibit 1-5

- CM provides some relief from long process by fast tracking the project.

Disadvantages

- Needs trained personnel able to make day-to-day decisions about the alternatives presented by the A-E and the construction contractor.
- With a CM there will be less reliance on a “construction quality control” manager by the construction company. Also, sealed bidding may prevail over the need to select a “quality” construction contractor through the use of source selection.

The use of CM for building projects has increased rapidly over the past few years, both in the private sector and within Government agencies. GSA uses the concept frequently. Other civilian agencies such as the United States Postal Service, HUD, and the Department of Veterans Affairs have also utilized construction management services contracts. The Army Corps of Engineers has used the concept in serving as construction managers for foreign countries on large complex projects.

How and why has the use of CM come about? Did the need create the concept, or did the concept create the need?

In the *Building Construction Handbook*, authored by Dr. James J. Adrian, who is considered one of the country’s leading experts in construction management, Dr. Adrian lists the following reasons (in order of importance) for the rise of CM:

1. Failure of traditional methods to attain time, cost, and quality objectives.
2. Limited liability and bonding requirements of the CM firm.
3. Compatibility of CM process with increased project complexity.
4. Use of CM process by public agencies, such as GSA.

Design-Build

You may be easily confused in understanding the difference between what is called the Construction Management process and one that is called a Design-build Process.

A-E PROCEDURES

Let's look at the difference. Design-build and CM are opposites:

- In the Design-build process, a single contractor having total responsibility provides the Government both the project design and the construction.
- In the true CM process, the CM firm provides neither the design itself, nor the construction. It provides only management.

Design-build is also compatible with fast-track projects. Source selection procedures are used instead of Brooks Act.

The Design-build contractor may be one of four types:

- A-E as prime contractor.
- Constructor as contractor.
- Joint venture of A/E and construction contractor.
- Design-build organization.

Advantages:

- Relieves the Government of almost all administrative details of the project, yet the Government retains right of approval.
- Results in time savings by eliminating the traditional time required to issue two contracts.
- Price is known and agreed upon initially.

Example: The Design-build price is often set at concept or early schematic design (10 to 30% stage). By contrast, in a CM contract, the price would be established at 50 to 80%; and for the traditional construction project at 100%, i.e., time of award.

Disadvantages:

- Government gives up much of the decision making, such as selection and direction of the architect.
- Government may feel less involved in shaping the project.
- Building codes and laws are written around the traditional method of contracting, and do not always accommodate the Design-build method.
- Government must still be involved in monitoring progress.
- Limits competition due to the effort and expense which must be

expended by the offeror of Design-build services to “bid” a package. Depending on the scope of work, the expense can range from a nominal amount to hundreds of thousands of dollars.

Turnkey

The “Turnkey Process” is similar to the Design-build process. The same contractor that designs the project builds the project, and when finished, turns the keys over to the Government. The contractor may, also, subcontract the design and provide the construction with its own forces.

The turnkey contractor normally provides multiple services in addition to the design and construction, such as:

- project financing
- obtaining permits and inspections
- site selection
- operating facility for a period of time.

Full title to the project is essentially held by the contractor until the “keys” are turned over to the Government. The types of projects for which the Government has utilized this method has been in large military housing projects, industrial processing plants, power generating facilities, etc.

Advantages:

- Allows for rapid construction of a project.
- Approval and coordination time is at a minimum.
- Government has to deal with only one contract and one contractor, thus eliminating much administration time.

Disadvantages:

- Once the contractor’s offer has been accepted, the Government has little involvement, leaving details up to the prime. (Could be either an advantage or disadvantage, depending on circumstances.)
 - Quality may be sacrificed to cost.
 - Objective evaluations of subcontractor’s proposals may be difficult because of the variations in construction. (For example, Vendor A may be submitting a less costly and less desirable HVAC system than vendor B, but this might not be known until construction is completed).
-

Partnering

Partnering is an innovative concept in A-E and construction contracting management and appears to be rapidly growing in popularity. It is the creation of a Government-contractor relationship that promotes achievement of mutually beneficial goals.

A-E PROCEDURES

It involves an agreement, in principle, to share the risks involved in completing a project, and to establish and promote a nurturing partnership environment.

What it is NOT:

- A contractual agreement.
- The creation of any legally enforceable rights or duties.
- “We” versus “them” (but rather “us.”)

Rather, partnering seeks to create a new cooperative attitude in completing Government contracts. Each party must seek to understand the goals, objectives, and needs of the other party. It can be applicable to either the A-E contract, the construction contract, or both.

Advantages:

- Creates a climate fostering success.
- Removes adversarial attitudes between the parties.
- Establishes and maintains communication.
- Promotes and fosters cooperative, synergistic relationship.
- Harnesses the capabilities, talents, and positive energies of both the A-E and the Government.

Disadvantages: (Either real concerns or perceived)

- Government and A-E become "too close."
- Contract requirements will be relaxed.
- Partnering is too concerned with the aspect of relationship with "no substance."
- Not worth the time and effort.

FOUR BASIC STEPS involved in establishing Partnering:

1. Establish a new relationship through personal contact. Success depends upon commitment built through personal relationship.
2. Draft a joint statement of goals of both parties and establish common objectives. For example, broad goals might include:
 - Meeting the design intent.
 - Maximum use of value engineering savings.
 - Limit on cost growth.
 - No impact to follow-on projects.
 - No loss of time due to job-related injuries. (Construction)
 - A fair sharing of contract risks.
 - Use of Alternative Disputes Resolution methods.
 - Litigation avoidance by reaching agreements.
 - Finish ahead of schedule of completion.
 - An implementation plan.

3. Identify specific disputes prevention processes designed to head off problems, evaluate performance, and promote cooperation.
 4. Establish periodic joint workshops which are guided by facilitators focusing on shared interests and cooperative effort.
 - Combine award ceremonies.
 - Promote professional development lectures, etc.
 - Conduct debriefing sessions following major milestones.
-

Design Competition

There is a special method available for contracting for design services which is called design competition. Design competition must be approved by the agency head or a designee. This procedure allows agencies to evaluate firms on the basis of their conceptual designs of the project. Design competition may be used when:

FAR 36.602-1(b)

- Unique situations exist involving prestige projects, such as the design of memorials and structures of unusual national significance;
- Sufficient time is available for the production and evaluation of conceptual designs; and
- The design competition, with its costs, will substantially benefit the project.

1.3 Legislative History of the Brooks Act

A brief look at the history of the A-E profession will provide some background for the enactment of the Brooks Act. Social changes have had a great effect on the evolution of the architect engineer profession.

Masterbuilder

The early designers of buildings were known as “master builders.” The first known “master” designed the steps for the pyramids, but there were others, i.e. the Great Wall of China, the masterful ancient Greek buildings, the Aqueducts of Rome, the Cathedrals of Europe, only to name a few. In many societies, although the work was ordered by a monarch or religious leader, it was directed by its designer - the architect or engineer who was the master builder.

The designers were not known as architects however until sometime during the Renaissance. Up until the time when they surfaced under the name of architects, they were still known as master-builders, with the responsibility for both designing and building. Life was simpler in the workplace. The pace was slow and free from paperwork. The master builder was considered the final authority when it came to design and construction matters. Most all work was by commission bestowed by lords, and rulers of empires.

A-E PROCEDURES

The Industrial Revolution brought with it vast changes in our society, including changes in the laws. During this period of rapid growth, the architect spent more and more time on the plans and specifications in order to comply with standardized practices which were mandated by law. By spending more time on the plans and specifications, there was less time which could be spent on supervision of building the project. The workplace became more complicated. Gradually architects were replaced with engineers and other construction oriented managers in the building phase. The architect came to specialize in design, leaving the building to builders. Thus the transition evolved into a professional status for the architect.

During the early days in the United States, architectural design traditions were transferred from Europe. Government designs were still accomplished in-house and consisted primarily of the design of buildings to house Government offices and state capitals. This approach continued through the depression years.

Early in 1939, a few design requirements were contracted with the private sector, some of which was the results of “contests” between A-E’s competing for an award. However, with the fear of war growing stronger by the day, legislation was enacted by Congress to accomplish a vigorous military construction program to improve existing facilities and construct new facilities on military bases.

World War II

In order to expand our ability to meet the threat of war, a law was passed which was called the Public Works Act of 1939. It authorized the Secretaries of War and the Navy Department to:

- contract with practicing architects and engineers for the production of designs, plans, drawings, and specifications for public works projects and facilities without regard to statutes which required public advertising of requirements and competitive bidding.
- It contained a 6% limiting factor on the contract amount or fee which an A-E could charge for design services.

Congress considered this law to be an adequate limiting measure for determining the fairness and reasonableness of the fees charged by the A-E firms involved in the design of military construction projects. The “6% limiting factor” is still in effect today.

When Congress enacted the law, the flood gates opened. The philosophy of the U.S. Government was to pour all A-E requirements to the private sector. And “pour they did”! The flow of A-E requirements from the Government to the A-E community became so great that Federal agen-

LAWS AFFECTING A-E PROCUREMENT		
Title	Date	Provisions
Public Works Act	1939	Authorized Secretaries of War and the Navy Department to contract with A-Es for public work projects without regard to statutes which required public advertising and competitive bidding. Set the 6% statutory limitation on design fee.
Armed Services Procurement Act	1947	Detailed requirements for awarding DOD contracts through formal advertising and competitive bidding procedures.
Federal Property and Administrative Services Act	1949	Similar to the Armed Services Procurement Act, but directed to all other executive (i.e., civilian) agencies to follow the formal advertising and competitive bidding procedures.
Brooks Act	1972	An amendment to the Federal Property and Administrative Services Act.
Competition in Contracting	1984	Amended the Armed Services Procurement Act by substituting "sealed" bidding" for "formal advertising" and replacing the 17 exceptions for negotiation with 7 broad exceptions. Defined the A-E selection process as a competitive procedure.
Public Law 100-656	1989	Greatly expanded the definition of architectural and engineering services.

Exhibit 1-6

cies were forced to enact policies requiring a certain percentage of each agency's design requirements to be accomplished with in-house forces.

With this dramatic shift in the method of doing business for the design requirements of the Government, the laws governing the procurement of A-E services also began to change. Except for DOD, the existing laws required advertisement and competitive bidding procedures. The time had come to change that. Thus began a series of laws that were passed leading up to the enactment of the Brooks Act and beyond. Exhibit 1-6 describes them.

A-E PROCEDURES

GAO Decisions

During the period between 1949 and 1972, there were numerous conflicting Comptroller General decisions regarding the 6% statutory fee limitation, and in the various decisions, there was written evidence of a growing concern as to the legality or conflict in selecting and awarding A-E contracts based on criteria other than price. The Comptroller General pointed to the Armed Services Procurement Regulation (ASPR) requirement which prescribed that “proposals shall be solicited from the maximum number of qualified sources and that written or oral discussions be held within the competitive price range.”

In addition, agencies were not consistent in their interpretation of which one of the 17 exceptions to cite for sole source negotiations with A-Es. The ASPR stated without reference to any law, that the selection policy for professional services contracts with A-E firms “shall not be based upon competitive bidding procedures, but rather upon the professional qualifications.” The ASPR was simply including the selection and contracting procedures that had been in use for 30 odd years by the agencies authorized and ignoring other references in the regulation to the requirement for competitive bids. (This did not apply, of course, if the procurement fell within one of the 17 exceptions.)

In order to clarify and settle a growing concern about the matter, GAO issued a report to the Congress in 1967 entitled *Government Wide Review of the Administration of Certain Statutory and Regulatory Requirements Relating to Architect-Engineer Fees*. The report recommended that the

- 6% statutory fee be abolished on the grounds that it was impractical and unsound and.
- A-E’s be required to quote prices, therefore subjecting the requirement to competitive procedures described in the ASPR.

Congress responded by initiating a study to be made by the Committee on Government Operations. As a result of the study, the Brooks Act was passed, ending most of the confusion which had previously existed except the need to clarify exactly what constitutes an A-E service. Later an amendment was issued to clarify the definition of A-E services. The 6% fee restriction was not amended by the Brooks Act.

Now that we have concluded our discussion regarding how the A-E contracting procedures evolved you should have a sense of the importance of the ability of the Government to be able to award to the firm who is the most capable of providing quality, rather than to the low offeror. The fact that the Congress recognized that importance by passing the Brooks Act in the face of the GAO’s attempt to align the procedures with traditional formal advertising was one of the significant recent events that shaped our procurement practices of today.

1.4 Forecast Requirements for Professional Services

The first step towards acquiring a new facility or the revamping of an existing one, is the acknowledgment of a need, which somehow must be satisfied.

The need is usually driven by:

- Customer or client: The recognition by an outside organization that it has a need to establish, improve or upgrade a building or facility. These are the most common needs to which the typical A-E contracting office responds.
- New technology: This is the result of new, improved or advanced technology which might fill a need by changing the method of operation, such as a building, a dam, a testing facility, or sending man to the moon. These are mostly military or NASA projects.
- Studies: Government or special interest groups may generate complex projects such as:
 - Hydroelectric power.
 - Flood control.
 - Recreational facilities.
 - Water quality control.

As you can see from how needs are generated, it is easy to conclude that the construction industry is a growth industry, and since construction relies on the A-E to design its needs, there is an on-going demand for design. While economics, and social changes are subject to occasional slowdowns and recessions, the fact remains that history has shown it to be a long-term growth industry.

From the time when a “seed of need” is planted in someone’s mind, there is a time span whereby much discussion, investigation, and decision making takes place. If the customer has multiple needs, forecasting will reflect these needs which may span several years. This forecasting phase usually occurs before the contract specialist* becomes involved:

- A project plan is developed.
- Budgets are scrutinized.
- Someone in authority validates the need.
- An individual is appointed to be responsible for managing the project on behalf of the client.

This person is usually called a project manager who becomes your interface between the customer or client, and the contracts office. The project manager has many responsibilities to the client during this formative period. Exhibit 1-7 lists some of the tasks required of a project manager.

* Although some agencies have involved contract specialists earlier in the planning phase.

A-E PROCEDURES

PROJECT MANAGER TASKS

- Plans long term needs with the client.
- Determines basic scope on individual projects.
- Offers planning assistance for the project.
- Initiates all necessary studies.
- Takes care of budget matters.
- Obtains justifications which may be required.
- Outlines lead times required for the procurement(s).
- Assists the client in preparation of the procurement request documents.
- Identifies resources.

Exhibit 1-7

Barriers To Fulfilling Need

From the time the need is identified to the time the requirement for design arrives in your office, there are many barriers which must be overcome in obtaining needed information.

One of the major hurdles of project management in the early stages is to see to it that all of the necessary approvals and permits required are obtained. Depending on the type of project and the location, this can sometimes constitute a major effort. (See Exhibit 1-8 for examples.)

PERMITS AND APPROVALS REQUIRED FOR A-E CONTRACTS

- Utility connections
- Air pollution studies
- Hazardous waste
- Smoke abatement
- Wetlands
- Rights of way
- Sewage collection
- Connections to public roadways
- Noise
- Floodplains
- Studies made on energy consumption.
- Environmental studies, permits and approvals.
- Soil contamination studies and tests.
- Studies on wildlife protection for endangered species.
- Special permits, Federal, State and Local.
- Real estate and water rights, use agreements.

Exhibit 1-8

THE BROOKS ACT TODAY

At the beginning of the chapter, one of your fellow contract specialists was about to sit through a class similar to the one you are now enrolled in. Jim had some private thoughts about what he was about to sit through in class. You may have had similar thoughts.

Now that we have concluded our discussion regarding how the A-E Contracting procedures evolved, you should have a sense of the importance of the ability of the Government to be able to award to the firm that is the most capable of providing quality, rather than to the lowest bidder. The Congress recognized this importance by passing the Brooks Act in the face of the GAO's attempt to align the procedures with traditional formal advertising. It was one of the significant events of the 70s that shapes our procurement practices of today.

During the 80s and early 90s significant changes have taken place in the methods we use in our application of the Brooks Act. As you have read, there is more than one A-E contracting method for your consideration.

Since the Brooks Act provides the blueprint for obtaining all A-E services, you must strive to become an expert in all of its provisions.

A-E PROCEDURES

CHAPTER 2

PLANNING

WHAT IS A PROFESSIONAL?

Sarah was pleased to know that professional services were treated differently from other forms of Government contracting. “I wish I could use this procedure for all my contracting requirements.” She imagined how nice it would be to select all contractors on their proven capabilities. She thought; “What a great concept - excellence instead of minimal adequacy.”

“There is that high visibility remodeling job where we could really use an excellent construction contractor to ensure everything goes smoothly.” Now her mind was racing. “I wonder if I could somehow use this Brooks Act to get a really top notch professional craftsman for the remodeling job? Highly skilled craftsmen are professionals, aren’t they? Craftsmen like that surely must work closely with Architects on matters of interior design? Maybe they fall under the umbrella of professional services?”

What do you think?

How do we define what services are considered “professional”?

How do you identify sources for these services?

Who are some of the key players and the roles they play in the process?

COURSE LEARNING OBJECTIVES

At the completion of this course, you will be able to:

Overall: Identify services requiring the use of Brooks Act procedures, key personnel and their roles in the process, sources of market data, and types of contracts appropriate for A-E services.

Develop a logical plan to ensure that the services are procured in an appropriate and efficient manner.

Individual:

2.1 Determine if Brooks Act applies:

- Definition of A-E services.
- Licensed, registered, or certified.
- Incidental services.
- Firms permitted by law to practice.
- Decision to use in-house assets or contract for the services.

2.2 Define roles and identify key personnel for the procurement:

- Requiring Activity.
- Project Manager.
- Design Manager.
- Contract Specialist.
- User.

2.3 Perform market research:

- Definitions of market research and market survey.
- Collecting data.
 - SF 254
 - SF 255
- Small Business Concerns.

2.4 Choose contract type:

- Complexity of the project.
- Ability to provide an accurate scope of work for the A-E.
- Similar or repetitive services required over a period of time.

2.5 Develop acquisition plan and milestones:

- Definitions.
- Bringing all of the variables together.

INTRODUCTION TO PLANNING

Behind every successful project completion, you will find a well laid plan that served as the foundation upon which the project could be built.

FAR 7.102

“Agencies shall perform acquisition planning and conduct market surveys for all acquisitions in order to promote and provide for full and open competition ...”

Agency Policy

Agency policy dictates the procedures to be followed in the execution of the plan with regard to:

- Maximizing competition.
- Developing specifications to promote competition.
- Establishing dollar thresholds for informal and formal plans.
- Appointing the planners.
- Establishing formats.
- Establishing procedures for processing urgent requirements.
- Performing market surveys.

The extent of plan preparation and the number of participants involved is dictated by agency policy, complexity of the project, and dollar value.

Early Decisions

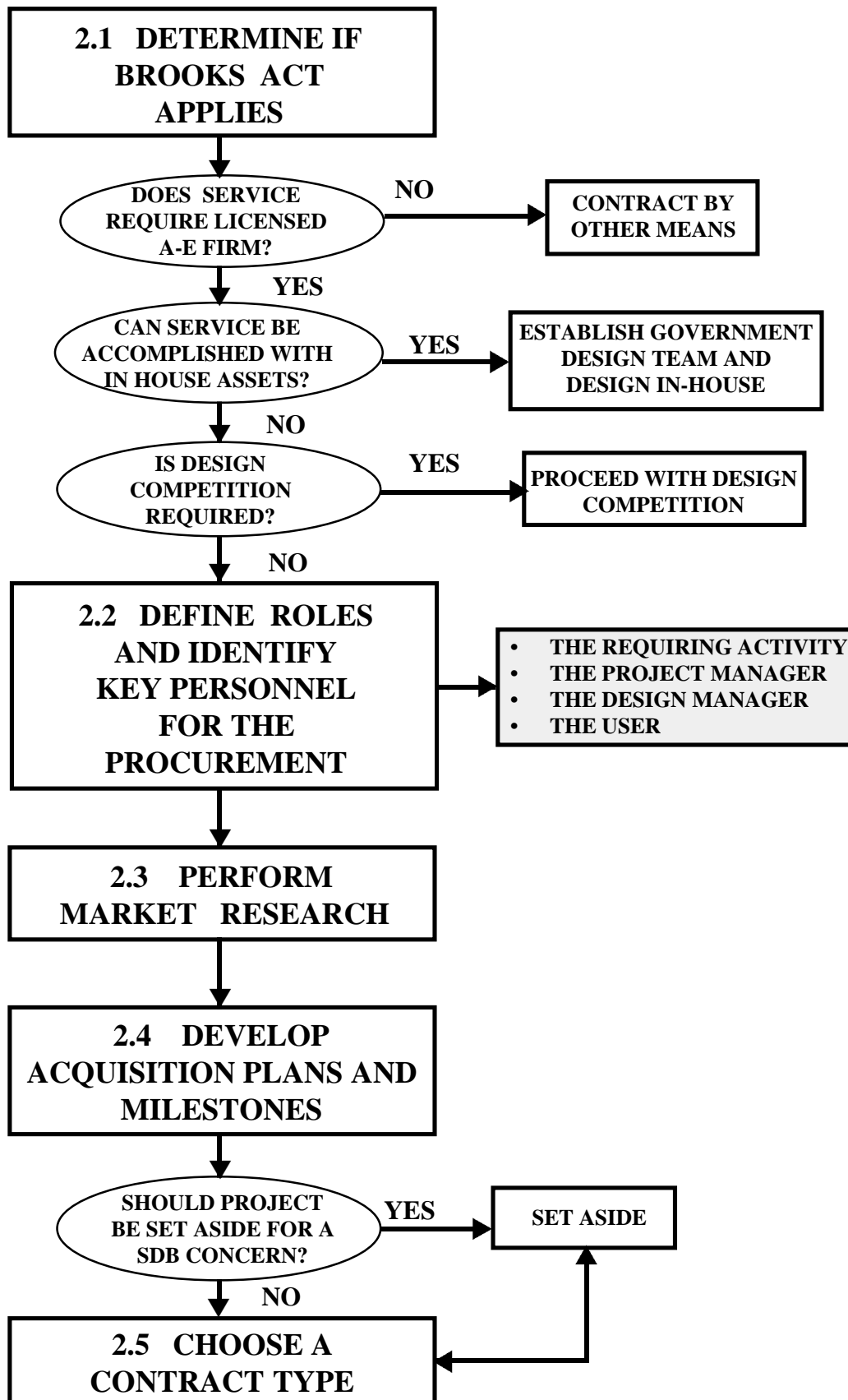
There are many decisions to be made early in the planning stage, not the least of which involves making a determination as to whether the project falls under the Brooks Act procedures. Other decisions would include:

- Selecting contract type.
- Selecting method used to contract.
- Choosing in-house or contract design.
- Determining the appropriateness of a set aside.

Steps in Performance

The steps in planning for an A-E acquisition are charted on the next page. Following the chart, each step is discussed in turn.

STEPS IN ACQUISITION PLANNING



STEPS IN ACQUISITION PLANNING

2.1 Determine if Brooks Act Applies

Professional services differ from other types of services, and it is the Brooks Act that prescribes the regulations used to contract for the professional services* of Architects and Engineers. Before looking in detail at the range of professional services that must be contracted for under the Brooks Act, we need to examine the definition in Exhibit 2-1 of an A-E service.

DEFINITION OF A-E SERVICES

FAR 36.102

Architect-engineer services, as defined in 40 U.S.C. 541 means:

- (1) Professional services of an architectural or engineering nature, as defined by State law, if applicable, which are required to be performed or approved by a person **licensed, registered, or certified** to provide such services;
- (2) Professional services of an architectural or engineering nature performed by contract that are associated with research, planning, development, design, construction, alteration, or repair of **real property**; and
- (3) Such other professional services of an architectural or engineering nature, or **incidental services**, which members of the architectural and engineering professions (and individuals in their employ) may logically or justifiably perform, including studies, investigations, surveying and mapping, tests, evaluations, consultations, comprehensive planning, program management, conceptual designs, plans and specifications, value engineering, construction phase services, soils engineering, drawing reviews, preparation of operating and maintenance manuals, and other related services.

Exhibit 2-1

The words above in **bold** print are key to the definition of A-E services for determining if the Brooks Act applies.

Licensed, Registered, or
Certified

Paragraph (1) covers the professional services which are commonly thought of when considering the architectural and engineering professions. These services are normally well defined by State law. The Requirement for Registration of Designer clause stipulates that

“The design of architectural, structural, mechanical, electrical, civil, or other engineering features of the work shall be accomplished or reviewed and approved by architects or engineers registered to practice in the particular professional field involved in a State or possession of the United States, in Puerto Rico, or in the District of Columbia.”

FAR 52.236-25

* Note that FAR 37.204(b) excludes A-E services from its definition of advisory or assistance services.

PLANNING

The clause may be omitted from the contract if

FAR 36.609-4

- (a) outside the United States, its possessions, or Puerto Rico, or
 - (b) in a State or possession that does not have registration requirements for the particular field involved.
-

Real Property

Paragraph (2) identifies professional services which relate specifically to real property. Real property means

FAR 45.101(a)

“... land and rights in land, ground improvements, utility distribution systems, and buildings and other structures.”

It includes but is not limited to improvements of all types, such as

FAR 36.102

“... bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, cemeteries, pumping stations, railways, airport facilities, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, canals, and channels.”

Incidental Services

Finally in paragraph (3) we find **services which are incidental** to the professional services of an architectural and engineering nature. Incidental services means:

FAR 36.601-4(a)(3)

- those which are incidental to some part of the A-E services and not, as often asserted, incidental to an A-E project; and
- whether the service is one which members of the architectural and engineering profession may logically or justifiably perform.

Examples include:

- studies
- tests
- evaluations
- consultations
- investigations
- soils engineering
- drawing reviews
- conceptual designs
- value engineering
- construction phase services
- surveying and mapping
- comprehensive planning
- program management
- plans and specifications
- preparation of operating and maintenance manuals.

Surveying and Mapping

Surveying is considered to be an architectural and engineering service. Mapping, however, had not been considered a Brooks Act procurement until 1988. This was a source of contention for some A-E firms because they were performing mapping services for various agencies in the development of real property. The A-E firms felt these services were

covered by the incidental services language. Some agencies disagreed with that interpretation and subsequently the GAO became involved.

Finally, in 1991 language was added to the FAR which specifically addressed the mapping services issue:

FAR 36.601-4(a)(4)

- Mapping associated with the research, planning, development, design, construction, or alteration of real property **is** considered to be an A-E service requiring Brooks Act procedures.
- Mapping such as typically performed by the Defense Mapping Agency **is not** considered to be incidental to some part of A-E services.

Exhibit 2-2 lists other typical services performed by an A-E firm. (See page 3-12 for additional examples.)

SERVICES PERFORMED BY LICENSED A-E FIRMS

- Land surveys.
- Professional engineering inspection services.
- Engineering field investigations
- Expert architectural or engineering witness services.
- Facility Master plans.
- Engineering cost estimates.
- Environmental impact assessments (when the statement of work, substantially or to a dominant extent, specifies performance by a licensed A-E firm).
- Life cycle cost studies.
- Interdisciplinary coordination and review.
- Material sample analysis and recommendations.
- Topographic surveys.
- Foundations analyses and reports.
- Preparation of as-built or record drawings.
- Preparation and review of guide or master specifications.
- Training or instruction (including preparation of training materials involving subject matter of an architectural or engineering nature).

Exhibit 2-2

Mixed Services

FAR 36.601-3(b)

When the project includes services which have been identified as A-E services, as well as other services which are not A-E services, you shall follow Brooks Act procedures if the statement of work, substantially, or to a dominant extent, specifies performance or approval by a registered or licensed architect or engineer.

PLANNING

FAR 36.601-3(c)

Examples of services which **do not** require a registered or licensed A-E firm and do not have to be procured using Brooks Act procedures (even if performed by A-Es) are listed in Exhibit 2-3.

SERVICES WHICH DO NOT REQUIRE A LICENSED A-E FIRM

- Auditing or accounting analysis or investigation.
- Environmental impact assessments which are largely free of technical engineering considerations.
- Management consulting services (unless State law requires licensed A-E).
- Routine laboratory material testing services.
- Environmental, archaeological, or historical surveys of a routine nature, where engineering judgement is not required.
- Training or instruction not involving material of an architectural or engineering nature.
- Studies involving purely social, economic or psychological phenomena.

Exhibit 2-3

FAR 36.601-4(b)

Finally, contracting officers may award contracts for A-E services to any firm PERMITTED BY LAW to practice the profession of architecture or engineering. This is important to remember and check out.

In-House Design

Up to this point the discussion has been about the need to use Brooks Act procedures to procure professional A-E services. Of course, this is only required when the decision has been made to contract for the services. Your Government agency, tasked with the management of real property, may have in-house assets capable of performing certain services. These capabilities are wide ranging and vary greatly from one agency to the next. In determining which projects will be accomplished “in-house” and which ones will be contracted out, your agency’s decision should be based on factors such as those presented in Exhibit 2-4.

DECISION FACTORS: IN-HOUSE VS. CONTRACTING OUT

- In-house capabilities and expertise.
- Complexity of the project.
- Lead time involved in contracting for the services.
- Funding considerations.
- Customer driven requirements.
- Other agency specific requirements.
- Existence of a Term Contract which could be used.

Exhibit 2-4

In-house capabilities and expertise. If internal assets do not have the required expertise to perform the services, the requirement will have to be contracted out:

1. Lack of expertise may only be a local condition. Within an agency, all assets may not necessarily be concentrated in one location. Regional offices may have totally different capabilities, even though they perform basically the same function. This is where your particular agency has to determine how these assets will be used, and whether it is feasible or desirable, to shuffle assets for a particular project.
2. Scheduling of in-house assets must also be considered by management. This relates to capabilities to perform the services. The agency may have the expertise to do the project; however, there may be schedule conflicts which prevent their use.

Complexity of the project. This consideration is also made at the time you make the determination concerning in-house capabilities and expertise. However, now the decision must be carried a step further. Let us say that your agency has the in-house capabilities and expertise to accomplish the task, but due to the complexity of the project, your assets will be so consumed by the project that you would not be able to respond to any emergent requirements. When considering very complex projects, it is prudent to have a totally independent reviewer or contractor make recommendations.

Lead time involved in contracting for the services. When asked to respond to requirements which are time sensitive, options can be limited:

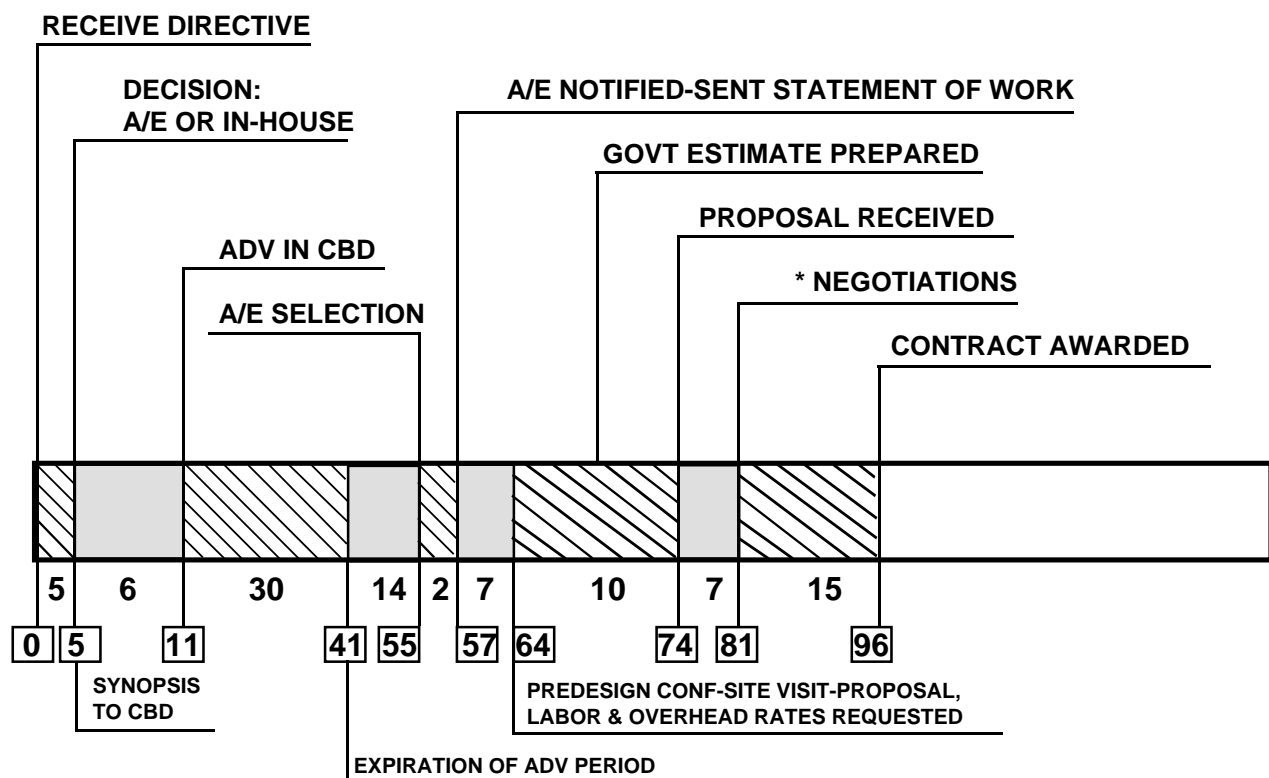
1. Even with a best case scenario for procuring A-E services, it takes a minimum of 96 days to award a contract. (See Exhibit 2-5.) If the service can be performed with in-house assets, the project can be started almost immediately.
2. Of course, there is always the situation where the requirement is short fused and the in-house expertise does not exist. In this situation you will have to determine if other than full and open competition can be justified.

Funding considerations. When contracting using Brooks Act procedures, you are further restricted because of the 6% fee limitation on design services. (See Chapter 4.3) In general A-E firms have been able to comply with this limitation. However, there are some cases when this may be an insurmountable hurdle for the A-E:

Example: When the Government requires design services for a construction project and the estimated cost of construc-

**A/E CONTRACT AWARD
TIME-TABLE
(CALENDAR DAYS)
CONCEPT TO CONTRACT AWARD
“Ideal World”**

CONSTRUCTION PROJECT COST UNDER \$8,000,000



* Audit is waived.

Exhibit 2-5

tion is below \$200,000, it is very difficult for the A-E to stay within the 6% design fee limitation. These types of projects are often performed in-house for this reason.

There may be other funding considerations which have an affect on the decision, such as budget cycles, special designations of funding, and last but not least, funding availability.

Customer driven requirements. Customers do not always know what it is they want, and subsequently may be difficult to satisfy. More often than not, for one reason or another, the customer will ask for changes after the project has begun. To an A-E firm, this change of direction can be very expensive, depending on when the change occurs. For projects which are not well defined in the beginning, it is in the Government's best interest to keep the project in-house until it is well or better defined. The ability to include phases or options in an A-E's contract can also help prevent expensive changes due to customer related changes.

Other agency specific requirements. This is a catch-all for a myriad of criteria which could influence a decision. *For example:*

- An agency may have socio-economic goals that need to be met, possibly causing projects that otherwise could be performed in-house to be contracted out; or
- Security requirements for various types of projects may dictate that projects be performed in-house.

Existence of a Term Contract. If an indefinite quantity term contract is in existence, and the instant requirement falls within the specific criteria in the ongoing contract, i.e.

- size of project,
- type of project,
- dollar restrictions,
- location of project,

consideration should be given to issuing a delivery order in lieu of keeping the design requirement in-house, unless there is some reason for retaining it. Indefinite quantity contracts offer:

- fast turn around,
- less administrative burden, and
- cost effectiveness.

The key to success in the A-E contracting process is communication and coordination. When making the decision to contract out or stay in-house, a great deal of information has to be considered. The sources for the information are not often centrally located. Lines of communication

have to be established and maintained between all of the players. If the technical branch wants to retain a project in-house, and does not communicate their concerns to the office with the responsibility for the decision, there is a good chance the project will be advertised.

Many agencies establish an A-E project manager or coordinator to facilitate the smooth and open flow of information.

2.2 Define Roles and Identify Key Personnel

Contracting for A-E services requires expertise from many different contributors functioning as a team throughout the procurement. Each member or specialized group will have an opportunity to contribute to, and, on occasion, lead the team's efforts. As with any team, the responsibility for success is shared by all the team members.

A basketball team can serve as a good analogy for how the procurement team should function.

During the course of a game each player will handle the basketball, sometimes passing off to another player, and sometimes taking the shot. When not handling the ball, basketball players don't just walk off the court. They continue to participate and assist when needed. To be successful, all team members must be willing and able to act when needed, either in a support role, or as the key player.

This is how our procurement team must function. As the lead passes from one group to the next, the other groups need to monitor the progress and assist as required. Just as a basketball team has a captain to call plays and lead the team, so too, our team needs a captain. Our team captain needs to be able to coordinate the effort and act as a central point of contact.

In many agencies this role has traditionally been filled by personnel from the design division, and the person is usually referred to as a project manager. This seems to function well, because through most of the procurement the design division has the most consistent contact with the majority of the players. The following list of major steps in the

acquisition process for A-E services from Exhibit 2-5 is matched up with its lead players:

Project Directive	Facility User
In-House vs. Contract	Project Manager
CBD Synopsis	Contract Specialist
A/E Selection	Project Manager
SOW	Design Division/Facility User
Gov't Est.	Design Division
Negotiations	Contract Specialist
Contract Award	Contract Specialist

Notice how the lead and support players change throughout the process.

Individual agencies have organized themselves in numerous ways to best suit their needs. However, in general, all the agencies have separate organizations for:

design	construction	facilities management
legal	procurement	

The personnel in each division report to their own supervisors, and the supervisors are evaluated on the results attained by the division. This type of organizational scheme can cause competition between divisions, especially among the supervision of personnel. This competition can manifest itself in negative ways if personnel in each division do not perceive a common goal. To ensure this does not occur, and that the procurement is accomplished in a smooth and timely manner, **management must:**

1. Identify key personnel from each division who will represent the division's concerns during the procurement.
2. Assign responsibilities to each team member and make them accountable.
3. Assign an overall project manager to lead the team's efforts.
4. Establish a line of authority for the project manager to a level above the individual division supervisors.

All participants in the procurement have a vital role to play in the success of the project. No one group can accomplish it alone.

PLANNING

2.3 Perform Market Research

FAR 10.001

Market research means the

“process used for collecting and analyzing information about the entire market available to satisfy the minimum agency needs in order to arrive at the most suitable approach to acquiring, distributing, and supporting supplies and services.”

The term “market” is a reference to the particular market in which our project is to be located. There are separate markets for different things. For example:

- Automobiles
- Computers
- Construction of facilities
- A-E services, etc.

All of these things are procured by the Government, but each is in its own separate and distinct market. In the procurement of A-E services, we are interested in a very specific market.

Market research involves, in part, the synopsis process. Response to the synopsis provides a clear indication as to the number of firms that may be available and interested in any given project. Other means of obtaining market data are:

- Through the A-E professional organizations,
- By reviewing past procurement records, and
- Reviewing SFs 254 & 255 on file. (See pages after Exh. 2-6.)

The definition of market research implies that we are to review all aspects of a market to see if there is a better way to acquire the service. The intent is to ensure that agencies develop purchase descriptions in a manner which will promote full and open competition, with due regard to the nature of the services to be acquired.

Therefore, when performing market research, it is the Contracting Officer’s responsibility to ensure full and open competition will be attained. To help in this effort, the Brooks Act gives very specific guidelines on how to collect and use information about the qualifications of firms in the specific market of A-E services. Exhibit 2-6 lists these guidelines.

FAR 53.236-2(b&c)

Notice when reviewing Exhibit 2-6 that market research for A-E services will take the form of SFs 254 and 255. To be considered for selection, A-E firms must submit these forms to the various Government agency offices where the procurement will be made.

It is the Government’s responsibility to ensure that the SF 254s submitted by A-E firms are categorized, filed, and updated as required.

COLLECTING DATA ON AND APPRAISING FIRMS' QUALIFICATIONS

FAR 36.603

Establishing Offices:

Agencies shall maintain offices or permanent evaluation boards, or arrange to use the offices or boards of other agencies, to receive and maintain data on firms wishing to be considered for A-E contracts. Each office or board shall be assigned a jurisdiction by its parent agency, making it responsible for a geographic region or area, or a specialized type of construction.

Qualifications Data:

To be considered for A-E contracts, a firm must file with the appropriate office or board, the SF 254, "A-E and Related Services Questionnaire," and when applicable, SF 255, "A-E and Related Services Questionnaire for Specific Project."

Data Files and Classification of Firms:

Under the direction of the parent agency, offices or permanent evaluation boards shall maintain an architect-engineer qualifications data file. These offices or boards shall review the SF's 254 and 255 filed, and shall classify each firm with respect to:

- (1) Location;
 - (2) Specialized experience;
 - (3) Professional capabilities; and
 - (4) Capacity, with respect to the scope of work that can be undertaken.
- A firm's ability and experience in computer assisted design should be considered, when appropriate.

Currency of Files:

Any office or board maintaining qualification data files shall review and update each file at least once a year. This process should include:

- (1) Encouraging firms to submit annually an updated statement of qualifications and performance data on a SF 254.
- (2) Reviewing the SF 254s and 255s and, if necessary, updating the firm's classification.
- (3) Recording any contract awards made to the firm in the past year.
- (4) Assuring that the file contains a copy of each pertinent performance report.
- (5) Discarding any material that has not been updated within the past three years, if it is no longer pertinent.
- (6) Posting the date of the review in the file.

Use of data files:

Evaluation boards and other appropriate Government employees, including Contracting Officers, shall use data files on firms.

STANDARD FORM (SF) 254	Architect-Engineer and Related Services Questionnaire	Form Approved OMB No. 9000-0004
<p>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, D.C. 20405; and to the Office and Management and Budget, Paperwork Reduction Project (9000-0004), Washington, D.C. 20503).</p>		
<p>Purpose: The policy of the Federal Government in acquiring architectural, engineering, and related professional services is to encourage firms lawfully engaged in the practice of these professions to submit annually a statement of qualifications and performance data. Standard Form 254, "Architect-Engineer and Related Services Questionnaire" is provided for that purpose. Interested A-E firms (including new, small, and/or minority firms) should complete and file SF 254's with each Federal agency and with appropriate regional or district offices for which the A-E is qualified to perform services. The agency head for each proposed project shall evaluate these qualification resumes, together with any other performance data on file or requested by the agency, in relation to the proposed project. The SF 254 may be used as a basis for selecting firms for discussions, or for screening firms preliminary to inviting submission of additional information.</p>	<p>Definitions: "Architect-engineer and related services" are defined in Part 36 of the Federal Acquisition Regulation. "Parent Company" is that firm, company, corporation, association, or conglomerate which is the major stockholder or highest tier owner of the firm completing this questionnaire; i.e. Firm A is owned by Firm B which is, in turn, a subsidiary of Corporation C. The "parent company" of Firm A is Corporation C. "Principals" are those individuals in a firm who possess legal responsibility for its management. They may be owners, partners, corporate officers, associates, administrators, etc. "Discipline", as used in this questionnaire, refers to the primary technological capability of individuals in the responding firm. Possession of an academic degree, professional registration, certification, or extensive experience in a particular field of practice normally reflects an individual's primary technical discipline. "Joint Venture" is a collaborative undertaking by two or more firms or individuals for which the participants are both jointly and individually responsible. "Consultant" as used in this questionnaire, is a highly specialized individual or firm having significant input and responsibility for certain aspects of a project and possessing unusual or unique capabilities for assuring success of the finished work. "Prime" refers to that firm which may be coordinating the concerted and complimentary inputs of several firms, individuals or related services to produce a completed study or facility. The "prime" would normally be regarded as having full responsibility and liability for quality of performance by itself as well as by subcontractor professionals under its jurisdiction.</p>	<p>"Branch Office" is a satellite, or subsidiary extension, of a headquarters office of a company, regardless of any differences in name or legal structure of such a branch due to local or state laws. "Branch offices" are normally subject to the management decisions, bookkeeping, and policies of the main office.</p> <p>Instructions for Filing (Numbers below correspond to numbers contained in form):</p> <ol style="list-style-type: none"> 1. Type accurate and complete name of submitting firm, its address, and zip code. 1a. Indicate whether form is being submitted in behalf of a parent form or a branch office. (Branch office submissions should list only personnel in, and experience of, that office.) 2. Provide date the firm was established under the name shown in question 1. 3. Show date on which form is prepared. All information submitted shall be current and accurate as of this date. 4. Enter type of ownership, or legal structure, or firm (sole proprietor, partnership, corporation, joint venture, etc.) Check appropriate boxes including if firm is (a) a small business concern; (b) a small business concern owned and operated by socially and economically disadvantaged individuals; and (c) Women-owned; (See 48 CFR 19.101 and 52-219-9). 5. Branches of subsidiaries of large or parent companies, or conglomerates, should insert name and address of highest-tier owner. 5a. If present firm is the successor to, or outgrowth of, one or more predecessor firms, show name(s) of former entity(ies) and the year(s) of their original establishment. 6. List not more than two principals from submitting firm who may be contacted by the agency receiving this form. (Different principals may be listed on forms going to another agency.) Listed principals must be empowered to speak for the firm on policy and contractual matters. 7. Beginning with the submitting office, list name, location, total number of personnel and telephone numbers for all associated or branch offices, (including any headquarters or foreign offices) which provide A-E and related services. 7a. Show total personnel in all offices. (Should be sum of all personnel, all branches.) 8. Show total number of employees, by discipline, in submitting office. (*If form is being submitted by main or headquarters office, firm should list total employees, by discipline, in all offices.) While some personnel may be qualified in several disciplines, each person should be counted only once in accord with his or her primary function. Include clerical personnel as "administrative." Write in any additional disciplines -- sociologists, biologists, etc. -- and number of people in each, in blank spaces.

STANDARD Architect-Engineer FORM (SF) and Related Services 254 Questionnaire

9. Using chart (below) insert appropriate index number to indicate range of professional services fees received by submitting firm each calendar year for last five years, most recent year first. Fee summaries should be broken down to reflect the fees received each year for (a) work performed directly for the Federal Government (not including grant and loan projects) or as a sub to other professionals performing work directly for the Federal Government; (b) all other domestic work, U.S. and possessions, including Federally-assisted projects, and (c) all other foreign work.

Ranges of Professional Services Fees

INDEX

1. Less than \$100,000
2. \$100,000 to \$250,000
3. \$250,000 to \$500,000
4. \$500,000 to \$1 million

INDEX

5. \$1 million to \$2 million
6. \$2 million to \$5 million
7. \$5 million to \$10 million
8. \$10 million or greater

10. Select and enter, in numerical sequence, **not more than thirty** (30) "Experience Profile Code" numbers from the listing (next page) which most accurately reflect submitting firm's demonstrated technical capabilities and project experience. **Carefully review list.** (It is recognized some profile codes may be part of other services or projects contained on list; firms are encouraged to select profile codes which best indicate type and scope of services provided on past projects.) For each code number, show total number of projects and gross fees (in thousands) received for profile projects performed by firm during past few years. If firm has one or more capabilities not included on list, insert same in blank spaces at end of list and show numbers in question 10 on the form. In such cases, the filled-in listing **must** accompany the complete SF 254 when submitted to the Federal agencies.

11. Using the "Experience Profile Code" numbers in the same sequence as entered in item 10, give details of at least one recent (within the last five years) representative project for each code number, up to a **maximum** of thirty (30) separate projects, or portions of projects, for which firm was responsible. (Project examples may be used more than once to illustrate different services rendered on the same job. Example: a dining hall may be part of an auditorium or educational facility.) Firms which select less than thirty "profile codes" may list two or more project examples to illustrate specialization) for each code number so long as total of all project examples does not exceed thirty (30). After each code number in question 11, show: (a) whether firm was "P", the prime professional, or "C", a consultant, or "JV", part of a joint venture on that particular project (New firms, in existence less than five (5) years may use the symbol "IE" to indicate "Individual Experience" as opposed to firm experience; (b) provide name and location

of the specific project which typifies firm's (or individual's) performance under that code category; (c) give name and address of the owner of that project (if government agency indicate responsible office); (d) show the estimated construction cost (or other applicable cost) for that portion of the project for which the firm was primarily responsible. (Where no construction was involved show approximate cost of firm's work); and (e) state year work on that particular project was, or will be, completed.

12. The completed SF 254 should be signed by a principal of the firm, preferably the chief executive officer.
13. Additional data, brochures, photos, etc. should not accompany this form unless specifically requested.

NEW FIRMS (not reorganized or recently-amalgamated firms) are eligible and encouraged to seek work from the Federal Government in connection with performance of projects for which they are qualified. Such firms are encouraged to complete and submit Standard Form 254 to appropriate agencies. Questions on the form dealing with personnel or experience may be answered by citing experience and capabilities on individuals in the firm, based on performance and responsibility while in the employ of others. In so doing, notation of this fact should be made on the form. In question 9, write in "N/A" to indicate "not applicable" for those years prior to firm's organization.

**Experience Profile Code Numbers
for use with questions 10 and 11**

001	Acoustics; Noise Abatement	039	Garages; Vehicle Maintenance Facilities; Parking Decks	080	Plumbing & Piping Design
002	Aerial Photography	040	Gas Systems (<i>Propane, Natural, Etc.</i>)	081	Pneumatic Structures; Air-Support Buildings
003	Agricultural Development; Grain Storage; Farm Mechanization	041	Graphic Design	082	Postal Facilities
004	Air Pollution Control	042	Harbors; Jetties, Pies; Ship Terminal Facilities	083	Power Generation, Transmission, Distribution
005	Airports; Navalds; Airport Lighting; Aircraft Fueling	043	Heating; Ventilating; Air Conditioning	084	Prisons & Correctional Facilities
006	Airports; Terminals & Hangars; Freight Handling	044	Health Systems Planning	085	Product, Machine & Equipment Design
007	Arctic Facilities	045	Highrise; Air-Rights-Type Buildings	086	Radar; Sonar; Radio & Radar Telescopes
008	Auditoriums & Theaters	046	Highways; Streets, Airfield Paving; Parking Lots	087	Railroad, Rapid Transit
009	Automation; Controls; Instrumentation	047	Historical Preservation	088	Recreation Facilities (<i>Parks, Marinas, Etc.</i>)
010	Barracks, Dormitories	048	Hospital and Medical Facilities	089	Rehabilitation (<i>Buildings, Structures, Facilities</i>)
011	Bridges	049	Hotels; Models	090	Resource Recovery; Recycling
012	Cemeteries (<i>Planning and Relocation</i>)	050	Housing (<i>Residential, Multi-Family; Apartments; Condominiums</i>)	091	Radio Frequency Systems & Shieldings
013	Chemical Processing & Storage	051	Hydraulics & Pneumatics	092	Rivers; Canals; Waterways; Flood Control
014	Churches; Chapels	052	Industrial Buildings; Manufacturing Plants	093	Safety Engineering; Accident Studies; OSHA Studies
015	Codes; Standards; Ordinances	053	Industrial Processes, Quality Control	094	Security Systems; Intruder & Smoke Detection
016	Cold Storage; Refrigeration; Fast Freeze	054	Industrial Waste Treatment	095	Seismic Designs & Studies
017	Commercial Buildings (<i>low rise</i>); Shopping Centers	055	Interior Design; Space Planning	096	Sewage Collection, Treatment and Disposal
018	Communications Systems; TV; Microwave	056	Irrigation; Drainage	097	Soils & Geologic Studies
019	Computer Facilities; Computer Service	057	Judicial and Courtroom Facilities	098	Solar Energy Utilization
020	Conservation and Resource Management	058	Laboratories; Medical Research Facilities	099	Solid Wastes; Incineration; Land Fill
021	Construction Management	059	Landscape Architecture	100	Special Environments; Clean Rooms, Etc.
022	Corrosion Control; Cathodic Protection; Electrolysis	060	Libraries; Museums; Galleries	101	Structural Design; Special Structures
023	Cost Estimating	061	Lighting (<i>Interiors, Display; Theater, etc.</i>)	102	Surveying; Platting; Mapping; Flood Plan
024	Dams (<i>Concrete; Arch</i>)	062	Lighting (<i>Exteriors, Streets; Memorials; Athletic Fields, etc.</i>)	103	Swimming Pools
025	Dams (<i>Earth, Rock</i>); Dikes; Levees	063	Materials Handling Systems; Conveyors; Sorters	104	Storm Water Handling and Facilities
026	Desalinization (<i>Process & Facilities</i>)	064	Metallurgy	105	Telephone Systems (<i>Rural; Mobile; Intercom, Etc.</i>)
027	Dining Halls; Clubs, Restaurants	065	Microclimatology; Tropical Engineering	106	Testing and Inspection Services
028	Ecological & Archaeological Investigations	066	Military Design Standards	107	Traffic & Transportation Engineering
029	Educational Facilities; Classrooms	067	Mining & Mineralogy	108	Towers (<i>Self-Supporting & Guyed Systems</i>)
030	Electronics	068	Missile Facilities (Silos; Fuels; Transport)	109	Tunnels & Subways
031	Elevators; Escalators; People-Movers	069	Modular Systems Design; Pre-Fabricated Structures or Components	110	Urban Renewals; Community Development
032	Energy Conservation; New Energy Sources	070	Naval Architecture; Off-Shore Platforms	111	Utilities (<i>Gas & Steam</i>)
033	Environmental Impact Studies, Assessments or Statements	071	Nuclear Facilities; Nuclear Shielding	112	Value Analysis; Life-Cycle
034	Fallout Shelters; Blast-Resistant Design	072	Office Buildings; Industrial Parks	113	Warehouse & Depots
035	Field Houses; Gyms, Stadiums	073	Oceanographic Engineering	114	Water Resources; Hydrology; Ground Water
036	Fire Protection	074	Ordnance; Munitions; Special Weapons	115	Water Supply, Treatment and Distribution
037	Fisheries; Fish Ladders	075	Petroleum Exploration; Refining	116	Wind Tunnels; Research/Testing Facilities
038	Forestry & Forest Products	076	Petroleum and Fuel (<i>Storage and Distribution</i>)	Design	
		077	Pipelines (<i>Cross-Country—Liquid & Gas</i>)	Zoning; Land Use Studies	
		078	Planning (<i>Community, Regional, Area-wide and State</i>)		
		079	Planning (<i>Site, Installation, and Project</i>)		

STANDARD FORM (SF) 254 Architect-Engineer and Related Services Questionnaire	1. Firm Name / Business Address: _____ 1a. Submittal is for <input type="checkbox"/> Parent Company <input type="checkbox"/> Branch or Subsidiary Office 5a. Former Parent Company Name(s), if any, and Year(s) Established: _____		2. Year Present Firm Established: _____ 3. Date Prepared: _____ 4. Specify type of ownership and check below, if applicable. <input type="checkbox"/> A. Small Business <input type="checkbox"/> B. Small Disadvantaged Business <input type="checkbox"/> C. Woman-owned Business																								
5. Name of Parent Company, if any: _____ 6. Names of not more than Two Principals to Contact: Title / Telephone 1) _____ 2) _____ 7. Present Offices: City / State / Telephone / No. Personnel Each Office 7a. Total Personnel _____																											
8. Personnel by Discipline: <i>(List each person only once, by primary function.)</i> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">— Administrative</td> <td style="width: 33%;">— Electrical Engineers</td> <td style="width: 33%;">— Oceanographers</td> </tr> <tr> <td>— Architects</td> <td>— Estimators</td> <td>— Planners: Urban/Regional</td> </tr> <tr> <td>— Chemical Engineers</td> <td>— Geologists</td> <td>— Sanitary Engineers</td> </tr> <tr> <td>— Civil Engineers</td> <td>— Hydrologists</td> <td>— Soils Engineers</td> </tr> <tr> <td>— Construction Inspectors</td> <td>— Interior Designers</td> <td>— Specification Writers</td> </tr> <tr> <td>— Draftsmen</td> <td>— Landscape Architects</td> <td>— Structural Engineers</td> </tr> <tr> <td>— Ecologists</td> <td>— Mechanical Engineers</td> <td>— Surveyors</td> </tr> <tr> <td>— Economists</td> <td>— Mining Engineers</td> <td>— Transportation Engineers</td> </tr> </table>				— Administrative	— Electrical Engineers	— Oceanographers	— Architects	— Estimators	— Planners: Urban/Regional	— Chemical Engineers	— Geologists	— Sanitary Engineers	— Civil Engineers	— Hydrologists	— Soils Engineers	— Construction Inspectors	— Interior Designers	— Specification Writers	— Draftsmen	— Landscape Architects	— Structural Engineers	— Ecologists	— Mechanical Engineers	— Surveyors	— Economists	— Mining Engineers	— Transportation Engineers
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— Economists	— Mining Engineers	— Transportation Engineers																									
9. Summary of Professional Services Fees Received: (Insert index number) <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;"> Direct Federal contract work, including overseas All other domestic work All other foreign work* </td> <td style="width: 33%; text-align: center;"> Last 5 Years (most recent year first) 19__ 19__ 19__ 19__ 19__ </td> <td style="width: 33%; text-align: center;"> Ranges of Professional Services Fees INDEX 1. Less than \$100,000 2. \$100,000 to \$250,000 3. \$250,000 to \$500,000 4. \$500,000 to \$1 million 5. \$1 million to \$2 million 6. \$2 million to \$5 million 7. \$5 million to \$10 million 8. \$10 million or greater </td> </tr> </table>				Direct Federal contract work, including overseas All other domestic work All other foreign work*	Last 5 Years (most recent year first) 19__ 19__ 19__ 19__ 19__	Ranges of Professional Services Fees INDEX 1. Less than \$100,000 2. \$100,000 to \$250,000 3. \$250,000 to \$500,000 4. \$500,000 to \$1 million 5. \$1 million to \$2 million 6. \$2 million to \$5 million 7. \$5 million to \$10 million 8. \$10 million or greater																					
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*Firms interested in foreign work, but without such experience, check here:

10. Profile of Firm's Project Experience, Last 5 Years											
Profile Code	Number of Projects 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)		Total Gross Fees (in thousands)	Profile Code	Number of Projects 11) 12) 13) 14) 15) 16) 17) 18) 19) 20)		Total Gross Fees (in thousands)	Profile Code	Number of Projects 21) 22) 23) 24) 25) 26) 27) 28) 29) 30)		Total Gross Fees (in thousands)
11. Project Examples, Last 5 Years											
Profile Code	"P", "C", "JV", or "IE"	Project Name and Location		Owner Name and Address		Cost of Work (in thousands)		Completion Date (Actual or Estimated)			
		1									
		2									
		3									
		4									
		5									
		6									
12. The foregoing is a statement of facts.											
Date:											
Signature _____ Typed Name and Title: _____											

<p>STANDARD FORM (SF) 255</p> <p>Architect-Engineer and Related Services Questionnaire for Specific Project</p>	<p>Form Approved OMB No. 9000-0005</p>
<p>Public reporting burden for this collection of information is estimated to average 1.2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, DC 20405; and to the Office of Management and Budget, Paperwork Reduction Project (90000-0005), Washington, DC 20503.</p> <p>Purpose: This form is a supplement to the "Architect-Engineer and Related Services Questionnaire" (SF 254). Its purpose is to provide additional information regarding the qualifications of interested firms to undertake a specific Federal A-E project. Firms, or branch offices of firms, submitting this form should enclose (or already have on file with the appropriate office of the agency) a current (within the past year) and accurate copy of the SF 254 for that office.</p> <p>The procurement official responsible for each proposed project may request submission of the SF 255 "Architect-Engineer and Related Services Questionnaire for Specific Project" in accord with applicable civilian and military procurement regulations and shall evaluate such submissions, as well as related information contained on the Standard Form 254, and any other performance data on file with the agency, and shall select firms for subsequent discussions leading to contract award in conformance with Public Law 92-582. This form should only be filed by an architect-engineer or related services firm when requested to do so by the agency or by a public announcement. Responses should be as complete and accurate as possible, contain data relative to the specific project for which you wish to be considered, and should be provided by the required due date, to the office specified in the request or public announcement.</p> <p>This form will be used only for the specified project. Do not refer to this submittal in response to other requests or public announcements.</p> <p>This form will be used only for the specified project. Do not refer to this submittal in response to other requests or public announcements.</p> <p>Definitions: "Architect-Engineer and related services" are defined in Part 36 of the Federal Acquisition Regulation. "Principals" are those individuals in a firm who possess legal responsibility for its management. They may be owners, partners, corporate officers, associates, administrators, etc. "Discipline", as used in this questionnaire, refers to the primary technological capability of individuals in the responding firm. Possession of an academic degree, professional registration, certification, or extensive experience in a particular field of practice normally reflects an individual's primary technical discipline. "Joint Venture" is a collaborative undertaking of two or more firms or individuals for which the participants are both jointly and individually responsible. "Key Persons, Specialists, and Individual Consultants", as used in this questionnaire, refer to individuals who will have major project responsibility or will provide unusual or unique capabilities for the project under consideration.</p> <p>Instructions for Filing (Numbers below correspond to numbers contained in form):</p> <ol style="list-style-type: none"> 1. Give name and location of the project for which this form is being submitted. 2. Provide appropriate data from the <i>Commerce Business Daily</i> (CBD), identifying the project for which this form is being filed. <ol style="list-style-type: none"> 2a. Give the date of the <i>Commerce Business Daily</i> in which the project announcement appeared, or indicate "not applicable" (N/A) if the source of the announcement is other than the CBD. 2b. Indicate Agency identification or contract number as provided in the CBD announcement. 3. Show name and address of the individual or firm (or joint venture) which is submitting this form for the project. <ol style="list-style-type: none"> 3a. List the name, title, and telephone number of that principal who will serve as the point of contact. Such an individual must be empowered to speak for the firm on policy and contractual matters and should be familiar with the programs and the procedures of the agency to which this form is directed. 3b. Give the address of the specific office which will have responsibility for performing the announced work. 4. Insert the number of personnel by discipline presently employed (on date of this form) at office specified in block 3b. While some personnel may be qualified in several disciplines, each person should be counted only once in accord with his or her primary function. Include clerical personnel as "administrative". Write in any additional disciplines — sociologists, biologists, etc. — and number of people in each, in blank spaces. 5. Answer only if this form is being submitted by a joint venture of two or more collaborating firms. Show the names and addresses of all individuals or organizations expected to be included as part of the joint venture and describe their particular areas of anticipated responsibility. (i.e., technical disciplines, administration, financial, sociological, environmental, etc.) <ol style="list-style-type: none"> 5a. Indicate, by checking the appropriate box, whether this particular joint venture has worked together on other projects. <p>Each firm participating in the joint venture should have a Standard Form 254 on file with the contracting office receiving this form. Firms which do not have such forms on file should provide same immediately along with a notation at the top of page 1 of the form regarding their association with this joint venture submittal.</p>	

**STANDARD
FORM (SF)
255**

**Architect-Engineer
and Related Services
Questionnaire for
Specific Project**

Standard Form 255
General Services Administration,
Washington, DC 20405

6. If respondent is not a joint venture, but intends to use outside (as opposed to in-house or permanently and formally affiliated) consultants or associates, he should provide names and addresses of all such individuals or firms, as well as their particular areas of technical/professional expertise, as it relates this project. Existence of previous working relationships should be noted. If more than eight outside consultants or associates are anticipated, attach an additional sheet containing requested information.

7. Regardless of whether respondent is a joint venture or an independent firm, provide brief resumes of key personnel expected to participate on this project. Care should be taken to limit resumes to only those personnel and specialists who will have major project responsibilities. Each resume must include: (a) name of each key person and specialist and his or her title, (b) the project assignment or role which that person will be expected to fulfill in connection with this project, (c) the name of the firm or organization, if any, with whom that individual is presently associated, (d) years of relevant experience with present firm and other firms, (e) the highest academic degree achieved and the discipline covered (if more than one highest degree, such as two Ph.D.'s, list both), the year received and the particular technical/professional discipline with which that individual will bring to the project, (f) if registered as an architect, engineer, surveyor, etc., show only field of registration and the year that such registration was first acquired. If registered in several states, do not list states, and (g) a synopsis of experience, training, or other qualities which reflect individual's potential contribution to this project. Include such data as: familiarity with Government or agency procedures, similar type of work performed in the past, management abilities, familiarity with the geographic area, relevant foreign language capabilities, etc. Please limit synopsis of experience to directly relevant information.

8. List up to ten projects which demonstrate the firm's or joint venture's competence to perform work similar to that likely to be required on this project. The more recent such projects, the better. Prime consideration will be given to projects which illustrate respondents capability for performing work similar to that being sought. Required information must include: (a) name and location of project, (b) brief description of type and extent of services provided for each project (submissions by joint ventures should indicate which member of the joint venture was the prime on that particular project and what role it played), (c) name and address of the owner of that project (if Government agency, indicate responsible office), (d) completion date (actual when available; otherwise estimated), (e) total construction cost of completed project (or where no construction was involved, the approximate cost of your work) and that portion of the cost of the project for which the named firm was/is responsible.

9. List only those projects which the A-E firm or joint venture, or members of the joint venture, are currently performing under direct contract with an agency or department of the Federal Government. Exclude any grant or loan projects being financed by the Federal Government but being performed under contract to other non Federal governmental entities. Information provided under each heading is similar to that requested in the preceding Item 8, except for (d) "Percent Complete." Indicate in this item the percentage of A-E work completed upon filing this form.

10. Through narrative discussion, show reason why the firm or joint venture submitting this questionnaire believes it is especially qualified to undertake the project. Information provided should include, but not be limited to, such data as specialized equipment available for this work, any awards or recognition received by a firm or individuals for similar work, required security clearances, special approaches or concepts developed by the firm relevant to this project, etc. Respondents may say anything they wish in support of their qualifications. When appropriate, respondents may supplement this proposal with graphic material and photographs which best demonstrate design capabilities of the team proposed for this project.

11. Completed forms should be signed by the chief executive officer of the joint venture (thereby attesting to the concurrence and commitment of all members of the joint venture), or by the architect-engineer principal responsible for the conduct of the work in the event it is awarded to the organization submitting this form. Joint ventures selected for subsequent discussions regarding this project must make available a statement of participation signed by a principal of each member of the joint venture. **ALL INFORMATION CONTAINED IN THE FORM SHOULD BE CURRENT AND FACTUAL.**

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PLANNING

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office.)		
Name & Address	Specialty	Worked With Prime before (Yes or No)
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		

SF 255
Facsimile

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.	
a. Name & Title:	
b. Project Assignment:	
c. Name of Firm with which associated:	
d. Years of Experience: With This Firm With Other Firms	
e. Education: Degree(s) / Year / Specialization	
f. Active Registration: Year First Registered/Discipline	
g. Other Experience and Qualification relevant to the proposed project:	

PLANNING

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).					
a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work For Which Firm Was/Is Responsible
(1)					
(2)					
(3)					
(4)					
(5)					
(6)					
(7)					
(8)					
(9)					
(10)					

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.					
a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name & Phone Number	d. Percent Complete	e. Estimated Cost (in Thousands)	
				Entire Project	Work For Which Firm Is Responsible

<p>10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project.</p>	
<p>11. The foregoing is a statement of facts.</p> <p>Signature _____</p> <p>Typed Name and Title: _____</p> <p>Date: _____</p>	

Additionally, evaluation boards and other appropriate Government employees, including contract specialists, are directed to use these files.

Set-asides

When performing market research, you must also consider to what maximum practicable extent small businesses or 8(a) firms can be utilized under the various social programs. By reviewing the files, you can generally, with the assistance of the evaluation board, assess the number of firms in each category. (Information concerning the A-E firm's business category is contained in the SF 254.)

FAR 19.502-2(a)

The contracting officer must then review acquisitions to determine if they can be set aside for small business and emerging small business concerns, giving consideration to the recommendations of agency personnel having responsibility for the agency's small and 8(a) business utilization program.

Before issuing solicitations, you must make every reasonable effort to find additional small business concerns. The Small Business Administration can also be of assistance in your market research.

FAR 19.102(g)

To be considered a Small Business, A-E firms must not have more than \$2,500,000* in annual receipts.

FAR 19.1005(a)(3)

There are a large number of A-E firms who fall into the small business category. As a result, the A-E industry was targeted as a participating industry group involved in the Small Business Competitiveness Demonstration Program, which began in January, 1989. Exhibit 2-7 explains the purpose of the program.

PURPOSE OF THE DEMONSTRATION PROGRAM

FAR 19.1003

The purpose of the demonstration program is to -

- (a) Test the ability of small businesses to compete successfully in certain industry categories without competition being restricted by the use of small business set-asides. A-E is one of the four designated industry groups.
- (b) Measure the extent to which awards are made to a new category of small businesses known as Emerging Small Businesses (ESB's), and to provide for certain acquisitions, including A-E services, to be reserved for ESB participation only.

Exhibit 2-7

* For Standard Industrial Classification (SIC) code 8712. See FAR 19.101 for definition of "annual receipts."

PLANNING

Emerging small business means a

FAR 19.1002

“small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the standard industrial classification (SIC) code assigned to a contracting opportunity.”

FAR 19.1006(c)

The Office of Federal Procurement Policy (OFPP) has “reserved” or set-aside all A-E acquisitions **less than \$50,000** for emerging small A-E businesses, provided:

- competitive terms can be obtained from two or more emerging small businesses or
- a quotation is received from only one emerging small business at a reasonable price.

The “reserve amount” for A-E was published by OFPP in the Federal Register at 56 FR 46656, September 13, 1991.

2.4 Choose Contract Type

Choosing a contract type to match the conditions surrounding the procurement is an important part of the whole acquisition. The contract type will directly effect every phase of the acquisition - from planning to contract close out.

When considering what type of contract to use for your particular acquisition, the first question you, or other team members should be asking is:

What types of contracts are we allowed to use?

Since A-E contracts are awarded using negotiation procedures, they may be of any type or combination of types prescribed in Part 16 of the FAR. The criteria for selecting the contract type is based on what best serves the Government’s needs.

Exhibit 2-8 is a listing of factors which affect the selection of contract type. Notice that price competition and price analysis are not included because of the Brooks Act requirement to select and negotiate with the single best qualified A-E.

FACTORS IN SELECTING CONTRACT TYPES

FAR 16.104

There are many factors that the Contracting Officer should consider in selecting and negotiating the contract type. They include the following:

- Type and complexity of the requirement.
- Need for audit to support cost analysis.
- Urgency of the requirement.
- Period of performance.
- Contractor's technical capability and financial responsibility.
- Adequacy of the contractor's accounting system.
- Concurrent contracts.
- Extent and nature of proposed subcontracting.

Exhibit 2-8

Fixed-Price Contracts

Fixed-price types of contracts provide for a firm price or, in appropriate cases, an adjustable price and are not subject to any adjustment on the basis of the A-E firm's cost experience in performing the contract. They are suitable "when the contract specialist can establish fair and reasonable prices at the outset, such as when -

- (a) There is adequate price competition;
- (b) There are reasonable price comparisons with prior purchases of the same or similar supplies or services made on a competitive basis or supported by valid cost or pricing data;
- (c) Available cost or pricing information permits realistic estimates of the probable costs or performance; or
- (d) Performance uncertainties can be identified and reasonable estimates of their cost impact can be made, and the contractor is willing to accept a firm fixed price representing assumption of the risks involved."

FAR 16.202-2

In most cases, A-E services will be procured using firm-fixed-price contracts. This places maximum risk and full responsibility for all costs and resulting profit or loss, directly on the A-E firm. The Government prefers this method because it:

- provides maximum incentive for the A-E to control costs,
- motivates the A-E to perform efficiently, and
- minimizes administrative burden upon the contracting parties.

There are several types of fixed-price type contracts. Exhibit 2-9 summarizes these types for A-E procurements.

TYPES OF FIXED-PRICE CONTRACTS

Economic Price Adjustment

A fixed-price contract with economic price adjustment provides for upward and downward revision of the stated contract price upon the occurrence of specified contingencies.

Incentive

This method provides for adjusting profit and establishing the final contract price by a formula based on the relationship of final negotiated total cost, to total target cost.

Prospective Price Redetermination

This type provides for (a) a firm fixed price for an initial period of contract deliveries or performance and (b) prospective redetermination, at a stated time or times during performance, of the price for subsequent periods of performance.

Level of Effort Term

This method requires (a) the A-E firm to provide a specified level of effort, over a stated period of time, on work that can be stated only in general terms, and (b) the Government to pay the A-E firm a fixed dollar amount.

Exhibit 2-9

Cost-Reimbursement Contracts

Cost-reimbursement contracts are used in A-E contracting, especially in the environmental services arena. In the environmental arena there are many uncertainties involved in contract performance, especially during the identification stage. These uncertainties do not permit costs to be estimated with sufficient accuracy to use any type of fixed-price contract.

Cost-reimbursement contracts may be used only when:

- Contractor's accounting system is adequate for determining costs applicable to the contract,
- Appropriate Government surveillance during performance will provide reasonable assurance that efficient methods and effective cost controls are used, and
- A determination and findings has been executed, in accordance with agency procedures, showing that
 - ① this contract type is likely to be less costly than any other type, or
 - ② it is impractical to obtain supplies or services of the kind or quality required without the use of this contract type.

Exhibit 2-10 shows the various methods for determining a fee for cost type contracts.

FEE METHODS FOR COST CONTRACTS

Cost-plus-incentive-fee

A cost-reimbursement contract that provides for an initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs. These types of contracts are covered in Subpart 16.4

Cost-plus-award-fee

This type of cost reimbursement contract provides for a fee consisting of (a) a base amount (which may be zero) fixed at inception of the contract and (b) an award amount, based upon a judgmental evaluation by the Government, sufficient to provide motivation for excellence in contract performance. Cost-plus-award-fee contracts are covered in Subpart 16.4.

Cost-plus-fixed-fee

This is a cost-reimbursement contract that provides for payment to the A-E firm of a negotiated fee that is fixed at the inception of the contract. The fixed fee does not vary with actual cost, but may be adjusted as a result of changes in the work to be performed under the contract. This contract type permits contracting for efforts that might otherwise present too great a risk to A-E firms, but it provides the A-E's only a minimum incentive to control costs.

Exhibit 2-10

Indefinite-Quantity Contracts

An indefinite-quantity contract provides for:

- specific types of design services,
- within stated limits,
- to be furnished during a fixed period
- with completion to be determined by negotiation with the A-E contractor at the time of placing orders.

Indefinite-quantity (IQ) contracts should be used when there is a recurring need for services of the same nature. There are agency specific regulations which apply to the use of this type contract.

When contemplating the use of IQ contracts* for A-E services you must be careful when defining a scope of services. The Brooks Act was established so that the Government could identify the most highly qualified A-E firm for the particular services required. If IQ contracts are advertised with scopes of services which are too general in nature, the

* See Appendix B for additional information concerning A-E IQ contracts.

PLANNING

intent of the Brooks Act will have been circumvented. The IQ's scope has to be specific enough so that an evaluation board can identify which A-E firm is the most highly qualified. Too broad of a scope may also unfairly restrict competition by eliminating small A-E firms that do not have every professional discipline covered in-house. The GAO has been increasingly sensitive to this abuse of the Brooks Act.

Letter Contracts

A letter contract is a written preliminary contractual instrument that authorizes the A-E to begin immediately performing services required.

Letter contracts are rare in A-E contracting. They may be used when an emergent requirement develops and response time is limited.

2.5 Develop Acquisition Plans and Milestones

FAR 7.101

Acquisition planning is the process by which the efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost. It includes developing the overall strategy for managing the acquisition.

Agencies have been directed to perform acquisition planning and conduct market surveys for all acquisitions in order to promote and provide for full and open competition. This planning is to integrate the efforts of all personnel responsible for significant aspects of the acquisition.

Throughout the first two chapters we have been discussing aspects that apply to acquisition planning:

What procedures will be used to make the acquisition?

- Brooks Act?
- Do we contract out, or, keep it in-house?
- Is the project appropriate for design competition?
- Would a partnering arrangement be appropriate?

Who are the key players needed to ensure the acquisition is successful?

What does the market place look like?

- Are there enough qualified firms to have competition?
- Are there enough qualified small disadvantaged or 8(a) firms to set-aside?

What contract type will best suit the Government's requirements?

- Fixed-price?
- Cost-reimbursement?

- Indefinite-quantity?
- Letter?

In essence, an acquisition plan is the process of ensuring the ground work is done properly. It is there to help you methodically plan the acquisition. Each agency has it's own guidance for acquisition planning. This guidance specifically calls out -

- Detail that the acquisition plans must have for various dollar thresholds.
- Who is responsible for the plan.
- The timing for submission and review.
- The milestones which must be met throughout the procurement.

Conversion to the Metric System

Since early 1970, there has been Government legislative efforts to establish metrics as the preferred system for measurements.

President Bush, in 1992, signaled the impending change by signing Executive Order 12770, Metric Usage in Federal Government Programs.

The document requires Federal agencies involved in construction to develop specific target dates for converting to metric. Agency representatives, meeting as an ad hoc committee, unanimously agreed to set January 1, 1994 as the deadline.

Several agencies, among them GSA, have issued and awarded contracts under the system as a test. While some agencies applaud the move to metrics, others are resistant.

- The move to metrics may affect retrofit projects more than new construction because of trying to fit new types of dimensions into the existing inch and foot dimensions.
- A-E firms will probably have no difficulty in the conversion; however, unless and until the manufacturing industry associated with construction starts to produce and sell products in metric units, there may be difficulties in conversion.

The decision to “go metric” must be made early in the procurement planning stage, and the requirement included in the synopsis.

SARAH IS OUT OF LUCK!!

Done properly, the acquisition plan will serve as an effective management tool; ensuring the procurement meets the agency's needs in a timely manner, at a reasonable cost and with maximum competition.

Looking back to the beginning of the chapter we were given a scenario where a professional craftsman was required. The question we were left with was; what services are considered "professional"?

After studying this chapter it is plain to see that even though there are many types of professionals providing, a wide range of services, the Brooks Act applies only to services of an Architectural or Engineering nature. In the opening scenario the craftsman required could indeed be considered a professional, but not one who's services are covered by the Brooks Act. The guidelines for determining if the Brooks Act applies are well defined. Contracting Officers must use this guidance when confronted with a situation where a service is required which is incidental to some part of the A-E services. These are classified as other incidental services which are of an architectural or engineering nature.

Once we determined that the Brooks Act procedures apply we saw the need to develop a plan to ensure the acquisition is fully successful. The acquisition plan identifies who is responsible for various actions and establishes milestones to be met during the procurement. Details about the decision to keep the project in-house or contract out, the contract type, and if small business concerns can be utilized will also be covered. When all these things are done properly the procurement has every chance for success.

CHAPTER 3

SELECTION PROCESS

MR. BROOKS AND HIS ACT

Laura, the head of a contracting activity, was doing some professional reading in a contract management journal when she noticed an article on the A-E process. The article was very critical of Brooks Act procedures. The author of the article pointed out what he/she felt were huge shortcomings in the process. The main points developed in the article, which concerned Laura the most, were:

- (1) Choosing professionals only on their qualifications facilitates political tampering, improper influence, and favoritism which results in higher prices to the Government.*
- (2) The Brooks Act procedures are not competitive procedures which facilitate full and open competition.*
- (3) Professional services should be selected on the basis of demonstrated competence, public announcement, qualifications of the type of professional services, and a fair and reasonable price.*

Laura had two staff members presently enrolled in the A-E contract management course, Rebecca and Mike. Reviewing the class schedule, she could see that tomorrow Rebecca and Mike would be covering selection procedures. Laura left a message for the two of them to stop and see her after class. When Rebecca and Mike met with Laura, she gave them each a copy of the article and told them to read it before tomorrow's class. She also told them to take special note of the three key points of the article and see how each compared to what would be presented in their class. Laura then requested that Rebecca and Mike stop in after class tomorrow to discuss their findings.

Do you think the author of the article is correct?

As you go through the chapter ask yourself:

- 1) Do Brooks Act procedures promote favoritism?*
- 2) Does the Brooks Act promote full and open competition?*
- 3) Do Brooks Act procedures result in fair and reasonable prices?*

CHAPTER 3 LEARNING OBJECTIVES

At the completion of this chapter, you will be able to:

Overall:

Perform the tasks required for selection of an A-E in accordance with Brooks Act procedures.

Individual:

3.1 Develop a detailed scope of work.

Include all information which shall be included in the synopsis.

3.2 Develop a synopsis scope of work.

Include information which will provide both parties a clear understanding of the work to be ordered.

3.3 Develop specific selection criteria.

Critique specific selection criteria for appropriateness and compliance with regulations.

3.4 Prepare and publish in the CBD the requirement for an A-E contract.

3.5 Receive and process all responses to a CBD announcement.

3.6 Explain evaluation board procedures.

- Explain the procedures for establishing evaluation boards.
- Explain the ranking procedures to be followed by each board member.

3.7 Describe the functions of the selection authority in making the final selection.

INTRODUCTION TO THE SELECTION PROCESS

Purpose of Brooks Act The Brooks Act is designed to allow you to identify the most highly qualified firm to perform a particular service and then negotiate a contract with that firm.

- If you cannot negotiate a fair and reasonable price with the most highly qualified firm, you must end negotiations with that A-E and start with the next most qualified firm on your list.
- You can continue this process until a contract can be negotiated at a fair and reasonable price.

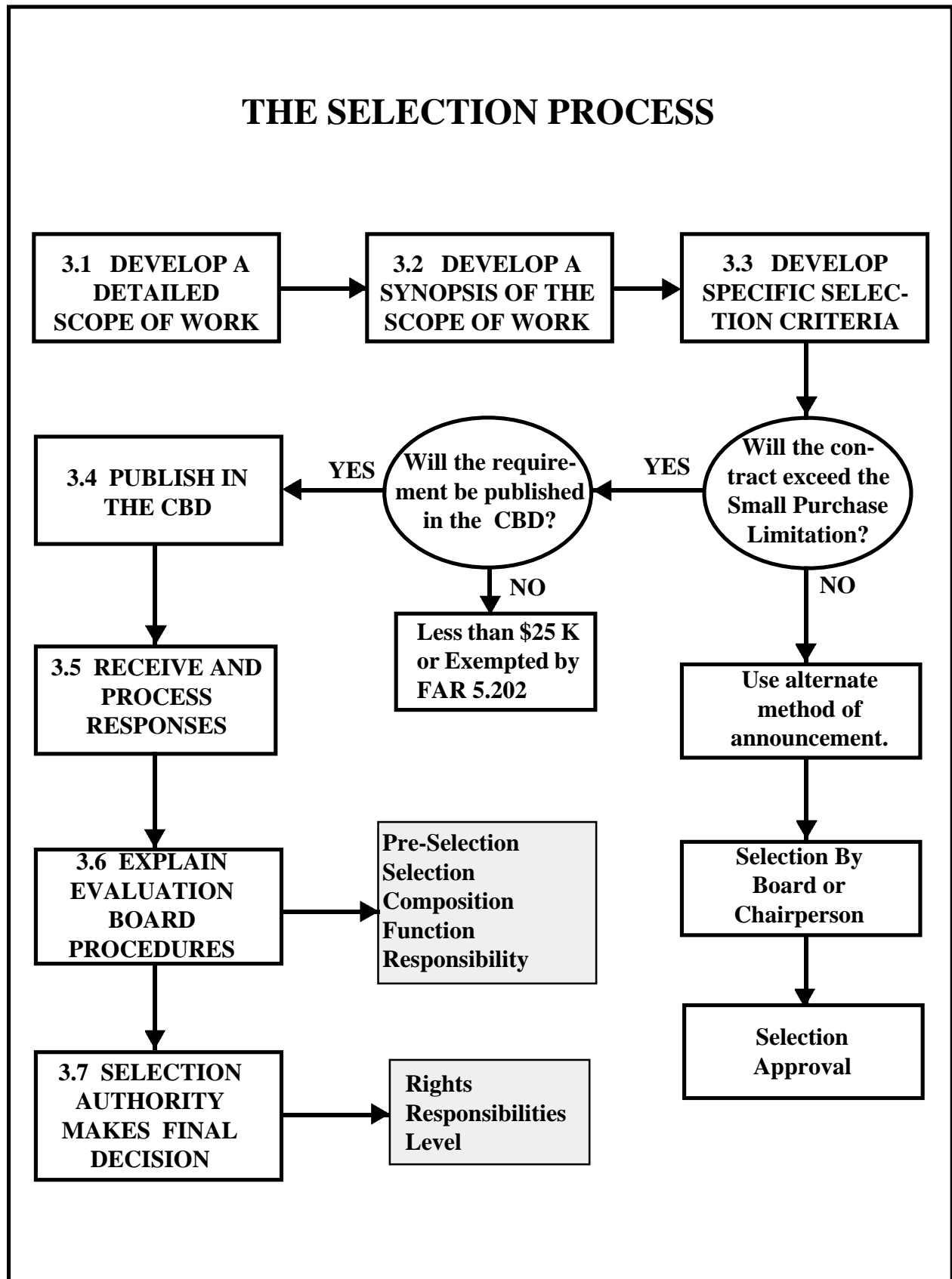
This gives the Government great latitude in selecting A-E firms. However, there is also a great deal of responsibility which you must exercise when making A-E selections to ensure the public's trust is maintained and that we truly do select firms on their professional qualifications.

To make a proper selection, you must:

FAR Subpart 36.6

1. Define the services required.
2. Develop selection criteria to meet the requirements.
3. Advertise the requirement and the selection criteria.
4. Evaluate the responses based on the published selection criteria.
5. Report findings to the final selection authority.

Steps in Performance The steps in selecting an A-E are charted on the next page. Following the chart, each step is discussed in turn.



STEPS IN THE SELECTION PROCESS

3.1 Develop a Detailed Scope of Work

Once the determination has been made that the requirement will be contracted out and Brooks Act procedures used, a detailed scope of work must be developed. The term “Scope of Work” can have several meanings and refers to related but discrete entities in relation to facilities acquisition.

1. **Project Scope of Work:** This refers to the requirements of the total project or the boundaries of the ultimate product delivered to the customer. Examples include a new court house, the environmental restoration of a site, or the out-leasing of Federal lands.
2. **A-E Scope of Work or Scope of A-E Services:** This refers to the professional services of an architectural or engineering nature which are required to provide the design, study, or investigation needed to accomplish the overall project scope. It will become a part of the A-E’s contract and will include in great detail, all of the parameters necessary to ensure the Government receives the required services.
3. **Synopsized Scope of Work:** This refers to the scope of A-E services published in the CBD. It is a synopsis of the complete scope of A-E services and includes only the features which are necessary to define the uniqueness of the particular project. A-E firms can objectively decide whether or not their talents match the Government’s requirements.
4. **Implementing Scope of Work:** This refers to the construction contract, site remediation, or any other scope of work developed to implement the results of the A-E designs, studies and/or recommendations.

Exhibit 3-1 is a graphic representation of the various scopes of work and how they are related.

Generally, when the contract specialist begins an A-E procurement, the overall project scope of work is already well defined, however, you may be asked to assist the design group in the development of the scope of A-E services.

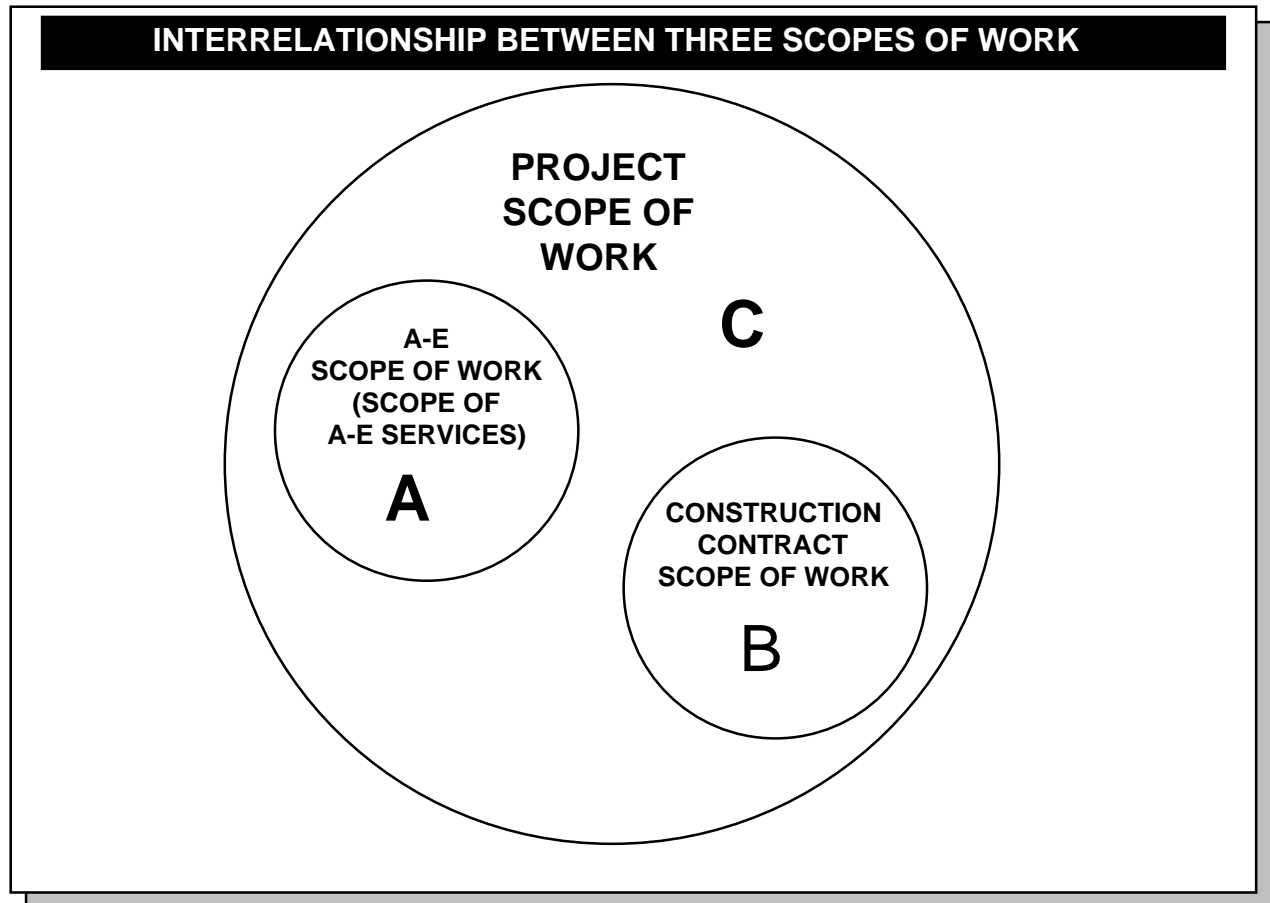


Exhibit 3-1

The scope of A-E services becomes part of the A-E's contract, and as such, should be written in clear and concise language to be both enforceable and easily understood by all parties.

- Tasks should be defined clearly, including measurable standards which are required to effectively monitor the A-E's performance during contract execution.
- Never ask for a study to be prepared to "professional standards." Instead describe the elements of work which the A-E is required to perform that will result in the anticipated end product.
- Design division personnel will have the expertise to develop a detailed description of the required services and measurable performance standards.

Your job as contract specialist will be to ensure all aspects of the scope of A-E services have been considered and included where appropriate.

Exhibit 3-2 lists the essential elements of the scope of A-E services. This list can be used as a guide when evaluating a proposed scope of A-E services.

FIVE ESSENTIAL ELEMENTS OF THE SCOPE OF A-E SERVICES

1. Intent of the Contract
2. Project Description
3. Estimated Construction Cost (ECC)
4. Schedule of Submittals
5. Special Considerations

Exhibit 3-2

Intent of the Contract This element of the scope of A-E services is used to describe what **types of professional services** are required and the contract type. The following items are examples of professional services which may be required by a particular contract:

- Production of plans, specifications, and drawings for construction.
- Conceptual designs.
- Environmental impact assessments.
- Engineering cost estimates.

There are many more professional services as defined by the Brooks Act. When describing the required services, it is important to provide the specific details of how the service is to be accomplished.

For design services, a statement needs to be provided that lists the specific standards and guidance that shall be followed during the design process. The specific standards and guidance will vary between agencies and with every project. The following is a list of some typical standards and guidance for design services which could be included:

- A-E design procedures manual (agency specific).
- Planning documents developed for the project.
- Historical preservation requirements.
- Archaeological preservation requirements.
- EPA standards.
- Handicapped standards.

SELECTION PROCESS

The **type of contract** the Government intends to use is the second part of the intent of the contract. There is a need for flexibility in selecting contract type to acquire the wide array of professional services. Recall that contract types vary according to:

- ✓ The degree and timing of the responsibility assumed by the A-E firm for the costs of performance.
- ✓ The amount and nature of the profit incentive offered to the A-E firm for achieving or exceeding specified standards or goals.

Specific contract types range from firm-fixed-price, in which the A-E has full responsibility for the performance costs and resulting profit (or loss) to cost-plus-fixed-fee, in which the A-E has minimal responsibility for the performance costs and the negotiated fee (profit) is fixed.

This section of the scope of work should also cover any **options** or **phases** contemplated by the Government.

For Indefinite Quantity A-E contracts, a statement needs to be made about services to be performed for the basic contract period and any intended time period extensions to be exercised as an option to the base contract. Also indicate a maximum and/or minimum contract amount to be ordered under each delivery order (as required); as well as the maximum/minimum overall contract amounts to be ordered (mandatory).

Indefinite Quantity (IQ) A-E contracts allow us to order projects against an existing contract by issuing delivery orders.

- Care must be taken when developing a scope of A-E services for IQ contracts to ensure the services are similar in nature and can be accurately described for all anticipated requirements.
- A-E IQ contracts are not to be used for work when there is likely to be a wide variation of tasks within a project. This situation may cause the selected A-E firm not to remain the most qualified firm to perform the services.
- When the prime A-E contractor must hire a subcontractor to perform services for a particular delivery order because the prime does not have the expertise or capacity to provide the service, it should alert you that the IQ contract should not be used. The prime contractor is, in effect, acting as a broker for Government work. The intent of the Brooks Act is also circumvented because

the Act clearly directs that we are to select the most highly qualified firm to provide the services.

Project Description

The project description is a brief outline of the specific services required. If, for example, the project scope of work is for a new court house to be designed and constructed, the description in the scope of A-E services would give the following details:

- Type of construction.
- Approximate physical size or dimensions.
- Quantities required.
- Project location.
- Any other project specific considerations which are required to accurately describe the project.

The project scope of work will be the source document for building an accurate scope of A-E services. Care must be taken to balance the requirements of the two scopes to ensure the scope of A-E services does not exceed the authorized project scope of work.

Estimated Cost of Construction

This item could arguably be included in the previous section. However, it is broken out because of its importance and to ensure that it is identified when required. Obviously, if the ultimate purpose of the A-E contract is not for designs and specifications for construction, then the Estimated Cost of Construction (ECC) has no relevance and would be left out.

For major construction projects, i.e., those requiring line item approval by Congress, the ECC has been established and approved. The approved prospectus (in the case of GSA), project authorization, or project funding information will contain the ECC information. When reviewing these documents remember that the **ECC does not include**

- contingencies,
- supervision inspection and overhead (SIOH),
- post construction award services (PCAS), or
- any Government Furnished Equipment (GFE).

If GFE is to be included in the construction contract, its estimated value must be determined and deducted from the ECC.

For smaller projects, not requiring congressional approval, the ECC will be developed during the planning stages and recorded in the planning documents.

SELECTION PROCESS

It is important to remember that each requirement for the production of a set of plans and specifications for construction requires an accurate ECC. This is also true for multiple project IQ contracts. For each delivery order issued, a separate ECC must be established.

The ECC is required for the following two reasons:

1. To establish the 6% fee limitation on design services.
2. To indicate the contractually specified dollar limit (funding limitation) for construction costs.

Exhibit 3-3 gives the statutory limitation on A-E's fees for design services. It was originally established in the Public Works Act of 1939.

6% DESIGN FEE LIMITATION

FAR 15.903(d)(1)(ii)

For architect-engineering services for public works or utilities, the contract price or the estimated cost and fee for production and delivery of designs, plans, drawings, and specifications **shall not exceed 6 percent** of the estimated cost of construction of the public work or utility, excluding fees.

Exhibit 3-3

To ensure the project scope of work is consistent with that which was approved, a dollar amount is established by the Government, limiting how much can be spent on any particular construction project. This limit is enforced through the Design Within Funding Limitations clause. (See Exhibit 4-6 for text of the clause.) Exhibit 3-4 provides the policy for using the clause.

POLICY FOR USING DESIGN WITHIN FUNDING LIMITATIONS CLAUSE

FAR 36.609-1(a)

"The Government **may** require the A-E contractor to design the project so that construction costs will not exceed a contractually specified dollar limit (funding limitation). If the price of construction proposed in response to a Government solicitation exceeds the construction funding limitation in the A-E contract, the firm shall be solely responsible for redesigning the project within the funding limitation. These additional services shall be performed at no increase in the price of this contract. However, if the cost of proposed construction is affected by events beyond the firm's control (e.g., if there is an increase in material costs which could not have been anticipated, or an undue delay by the Government in issuing a construction solicitation) the firm shall not be obligated to redesign at no cost to the Government."

Exhibit 3-4

FAR 52.236-22(c)

An important aspect of the ECC to remember in relation to the Design Within Funding Limitation clause, is that it is negotiable. The final funding limitation dollar amount is established during negotiations between the contractor and the Government and is included in the contract clause.

Schedule of Submittals

This section establishes the required time frames for each step in the design or services to be provided. The production of plans and specifications for a design project, including drawings for construction, should include:

- Concept study and drawings.
- Initial design (15-35% complete).
- Design completion (95% complete, prior to constructability review).
- Final design (100% design, ready for solicitation).

For other A-E services, where an actual design is not being produced, significant contract events must be identified so that the A-E's progress can be monitored. Each contract will be different and establishing these significant events will require close coordination between the contracts branch and the design branch.

Design branch will be able to identify points in the contract when some measurable evidence of performance can be submitted by the contractor.

Contracts branch will be concerned with ensuring that the frequency and validity of the submittals are adequate to allow progress payments at regular intervals.

In addition, you must specify how many copies of each submittal are required and how distribution of the submittals is to be handled. It is essential that all time constraints are explicitly called out in the scope of A-E services. Time constraints more stringent than normal will directly affect the A-E's fee.

Special Considerations

The scope of A-E services must also include information on the requirements for

- field pricing support (audit) when the total contract price is expected to exceed \$500,000,
- subcontracting with small, and small disadvantaged business concerns, and

SELECTION PROCESS

- submitting an acceptable subcontracting plan if the contract is to exceed \$500,000 and is awarded to other than a small business.

There are a variety of services that will be required by any given agency. The following list is illustrative of A-E services which routinely reoccur:

- Renderings
- Interior designs
- Submittal reviews
- Solar energy studies
- Routine construction site visits.
- Interdisciplinary coordination and review.
- Proposed construction contract progress schedules.
- Construction surveillance and inspection services.
- Evaluation of construction contractor Value Engineering.
- Witnessing of soil load testing
- Energy conservation measures
- Submittal log development
- Subsurface investigations

Finally, you must ensure all of the appropriate contract clauses* have been included in the proposed contract. This aspect falls under special considerations because not all contracts will have the same contract clauses.

NOTE: While developing or reviewing the scope of A-E services, the total project's success hinges on the quality of the A-E's performance. This is the reason the Brooks Act allows us to select the most highly qualified firms to do the work.

The degree of completeness and accuracy achieved in preparing the scope of A-E services will determine how well both parties understand the requirement. From a business perspective, a well defined scope will help the A-E develop an accurate fee proposal, which in turn will make negotiations more successful.

As the contract specialist, you will not be required to develop the technical aspects of the scope of A-E services. However, you must be able to identify when the proposed scope is accurate and complete.

The development of the scope of A-E services is the responsibility of the team, including the design and the contracts divisions, as well as the client, who must all work closely together to produce an effective document.

Without it, the project may be subject to protracted negotiations, contract disputes, and cost over-runs.

* Contract clauses specific to A-E contracting will be discussed further in Chapters 4 and 5.

3.2 Develop Synopsis Scope of Work

FAR 36.601-1

Once the scope of A-E services has been developed to a degree where the project's special requirements have been identified, then a synopsis scope of work can be developed. If the synopsis is drafted too early, prior to full development of the project description, ECC, and any special considerations, the firms responding to the public announcement may not be the most highly qualified to perform the services.

"The Government shall publicly announce all requirements for architect-engineering services and negotiate contracts for these services based on demonstrated competence and qualifications of prospective contractors to perform the services at fair and reasonable prices."

If the synopsis scope does not accurately reflect the unique features of the scope of A-E services, there is no hope of satisfying the intent of the Brooks Act.

The elements of the synopsis scope of work (See Exhibit 3-5.) are similar to the elements of the scope of A-E services listed in Exhibit 3-2:

1. Intent of the contract.
2. Project description.
3. Cost range for the required services.
4. Duration of the contract.
5. Special considerations.
6. Evaluation criteria for A-E selection.

NOTE the addition of "Evaluation criteria for selection."

The synopsis gives a **description of the services** and how they will be performed. Enough detail is provided to allow A-E firms to evaluate objectively their qualifications, experience, and capacity to do the work against the Government's requirements. It is essential for the A-E to determine if its firm is technically competitive for a particular project.

If the synopsis is too general, or the Government does not have the requirements fully developed, A-E firms lacking the proper qualifications will respond. This wastes time and resources for both the Government and the A-E firms who were not competitive. When this happens, the particular Government office or agency may experience GAO protests.

Usually, A-E firms are slow to approach the GAO with a protest. However, if they feel a pattern has developed within a particular office or agency which causes them to lose money, they will protest. The GAO

SELECTION PROCESS

is sensitive to protests where it can be shown that the Government issued an announcement, then proceeded with actions which were not in line with the announcement.

Now notice how the synopsis differs from the scope of A-E services for the element of the **estimated construction cost**:

In the scope of A-E services, you are required to use a specific, well defined estimated cost of construction (when appropriate).

In the synopsis scope, the ECC shall not be included; instead, a range for the anticipated contract amount must be used.

This allows the A-E community to determine whether or not they wish to pursue a project within a certain price range. Some firms will not want to be involved with small projects, whereas other firms may only be capable of handling small projects. Whatever the situation, the A-E firms must be provided this cost range information to make an accurate appraisal of their competitiveness.

Whereas in developing the scope of A-E services specific details concerning the schedule of submittals is required, the synopsis is only concerned with the **contract duration**. When deciding on which projects to pursue, an A-E firm is interested in two things:

1. When the project will start, and
2. How long the project will last.

Without this information, the A-E cannot properly evaluate their own capacity to do the work. *For example:*

Virtually all A-E's will have more than one project in process at any given time. As they look for new work, they must identify when the new work will start and how long it will last. With this information, the A-E is able to determine if the various projects in process of design within their organization can be successfully sequenced, so that each project may obtain the required action at the proper time.

By the same token, during the selection process, the Government needs to be able to make a capacity determination of the firm being considered with this information at hand to evaluate.

Examples of items some agencies cover under **special consideration** in the synopsis scope but not listed in the scope of A-E services are 8(a) set-asides and CADD (Computer Assisted Design Drawings.) If the particular agency desires to make a certain project a set-aside or specify use of CADD, the conditions must be clearly stated in the synopsis scope of work.

SYNOPSIS SCOPE OF WORK EXAMPLE

INTENT:	Architect Engineer services are required for preparation of plans and specifications, cost estimates, related studies, training, and all associated engineering services for repair and upgrading HVAC system, lighting, roof, and curtain wall for the General Services Administration, Federal Training Building, Washington, D. C.
PROJECT DESCRIPTION:	Design services will include: (a) replace/upgrade deteriorating sanitary system; (b) upgrade/repair existing HVAC system, (c) provide new lighting, fixtures, remove and replace ceiling containing asbestos, (d) remove existing roof and install new roof.
COST INFO:	Estimated construction cost is between \$2 and \$3 million.
DURATION:	Duration of the contract allows for a 30 week design period with an option to negotiate construction inspection services and the preparation of operating maintenance manuals.
SPECIAL TERMS:	<p>Joint venture or firm/consultant arrangements will be considered and evaluated on a demonstrated interdependency of the members to provide a quality design effort.</p> <p>Prior to the award of a contract, the selected firm, if not a small business concern, shall be required to present an acceptable small business and small disadvantaged business subcontracting plan in accordance with FAR 19.7.</p> <p>Responses must be received within 21 calendar days of the date of this notice.</p> <p>A-E firms which meet the requirements described in this announcement are invited to submit a completed SF 254 (unless already on file), and SF 255 to the office shown below. This is not a request for proposal.</p>
EVALUATION:	Selection will be based upon: Project Team: Key personnel with time to commit to the project, qualifications, and relevant experience as individuals and as a team. Design Management: Project management plan, past coordination, scheduling, cost control methods, production facilities, capabilities, and techniques. Design Ability: Visual and narrative evidence of team's ability with respect to innovative design solutions, including development of various concepts and alternative approaches, with emphasis on energy conservation in existing buildings: Experience: Performance on similar projects: Special: Demonstrated knowledge of repair and installation of HVAC systems. Demonstrated knowledge of life cycle cost analysis and energy conservation.
NOTE:	In specifying the evaluation criteria, agencies vary in their policy. Some agencies provide a percentage to each element illustrating the weight attached. Other agencies merely list the criteria in order of importance as illustrated here.

Exhibit 3-5

SELECTION PROCESS

3.3 Develop Specific Selection Criteria

At the same time the synopsis scope of work is being developed, the selection criteria to be included in the CBD announcement should also be developed. These same selection criteria will be used by the boards in their evaluation of the firms responding to the announcement. The A-E firms will also use these selection criteria to evaluate their firm's competitiveness for a particular project.

Combined with the synopsis scope of work, the selection criteria are the most important aspect of the Brooks Act procedures. Consider that the Government will select a firm with whom to negotiate a contract based only on the information included in the CBD announcement. From this it can be determined that if the synopsis scope of work and selection criteria are not properly worded, disastrous consequences could result.

The contract specialist will again be in a support and review role during the development of the selection criteria. This should not be viewed as diminishing the importance of the process. On the contrary, it should alert you to the fact that your actions will be vital

- to ensure that the selection criteria conforms to the regulations,
- accurately reflects the requirements, and
- does not restrict competition unfairly.

Exhibit 3-6 is a listing of the selection criteria required to be used for the evaluation of each A-E firm responding to the CBD announcement.

SELECTION CRITERIA

FAR 36.602-1(a)

Agencies shall evaluate each potential contractor in terms of its -

1. Professional qualifications necessary for satisfactory performance of required services;
2. Specialized experience and technical competence in the type of work required;
3. Capacity to accomplish the work in the required time;
4. Past performance on contracts with Government agencies and private industry in terms of cost control, quality of work, and compliance with performance schedules;
5. Location in the general geographical area of the project and knowledge of the locality of the project; *provided*, that application of this criterion leaves an appropriate number of qualified firms, given the nature and size of the project; and
6. Acceptability under other appropriate evaluation criteria.

Exhibit 3-6

The sixth item is really an opening for the various agencies and individual offices to **insert additional criteria** which may be important to the project. This is very important because not all projects will be the same, or even similar enough, to assume selection criteria developed for one project could be used for another.

The wording and order of the required **selection criteria can be modified** to better suit the particular project. Weighting, if used, needs to be assigned at the time the selection criteria are being developed, and not by the boards at the time of evaluation. When making a modification to the required selection criteria (sometimes referred to as “tailoring the criteria”), some guidelines must be followed.

The degree to which the selection criteria will have to be tailored will depend on the size and complexity of the required services. Each project should be evaluated by the design group to see what modifications, weightings, and/or priorities need be added for the selection criteria.

NUMBERED NOTE (See Exhibit 3-7):

If the numbered note (24) in the CBD* is to be used, a statement must be added indicating any priorities, weighting, and/or modifications assigned to the selection criteria listed in the note. The numbered notes are footnotes. The purpose of the numbered notes is to conserve space and simplify the identification of repetitive notices. They are **not** intended to limit your ability to communicate the Government’s requirements.

If the numbered note can be used as published, or with a concise and clear modifying statement, use it.

If the modifying statement becomes too complicated, or hard to follow, forgo the numbered note and use selection criteria tailored for the project.

As the contract specialist, you should always review the selection criteria with the design group. Try to determine if the priorities set, weights assigned, and modifications made, truly reflect the specific nature of the particular project.

You are not required to have expert knowledge of architecture or engineering. If you follow a few general guidelines as illustrated in Exhibit 3-8, you can come to an understanding of the project and its special requirements, all of which will need to be addressed in the selection process.

* An explanation of Numbered Notes appears each week in the Monday edition of the CBD.

CBD NUMBERED NOTE #24 *

24. Architect-Engineer firms which meet the requirements described in this announcement are invited to submit:

- (1) a Standard Form 254, Architect Engineer and Related Services Questionnaire,
- (2) a Standard Form 255, Architect Engineer and Related Services Questionnaire for Specific Project, when requested, and
- (3) any requested supplemental data to the procurement office shown.

Firms having a current Standard Form 254 on file with the procurement shown are not required to register this form.

Firms desiring to register for consideration for future projects administered by the procurement office (subject to specific requirements for individual projects) are encouraged to submit, annually a statement of qualifications and performance data utilizing Standard Form 254, Architect Engineer and Related Services Questionnaire.

Firms responding to this announcement before the closing date will be considered for selection, subject to any limitations indicated with respect to size and geographic location of firm, specialized technical expertise or other requirements listed.

Following an initial evaluation of the qualification and performance data submitted, three or more firms considered to be the most highly qualified to provide the type of services required, will be chosen for negotiation. Selection of firms for negotiation shall be through an order of preference based on demonstrated competence and qualifications necessary for the satisfactory performance of the type of professional services required, that include:

- (1) professional capabilities;
- (2) specialized experience and technical competence, as required;
- (3) capacity to accomplish the work in the required time;
- (4) past performance on contracts with respect cost control, quality of work, and compliance with performance schedules;
- (5) geographical location and knowledge of the locality of the project, provided that application of the criterion leaves an appropriate number of qualified firms, given the nature and size of the project;
- (6) any other special qualification required under this announcement by the contracting activity.

In addition to the above, special qualifications in the Department of Defense include the volume of work previously awarded to the firm by the Department of Defense, with the object of effecting an equitable distribution of Department of Defense architect engineer contracts among qualified architect-engineer firms including small and small disadvantaged business firms, and firms that have not had prior Department of Defense contracts.

Exhibit 3-7

* The text of Numbered Note #24 has been reformatted to facilitate reading and understanding.

GUIDELINES FOR REVIEWING SELECTION CRITERIA

- Wording must not be changed so as to hide or diminish the intent of the original wording set out in Exhibit 3-6. Language which adds specifics to, or quantifies the Government's requirements, is acceptable. In most cases, this will be required to facilitate the A-E firm's evaluation of their competitiveness, as well as for the evaluation boards' use during the selection process.
- In keeping with the intent of the Brooks Act, professional qualifications and specialized experience shall be considered the most important criteria for selection.
- Location and the amount of current Government contracts (if required by the agency) should never be listed as having more importance or a higher weighting than professional qualifications, specialized experience, and capacity to do the work. In reality, location and amount of current Government work should never be viewed as more than a tie breaker when all things are equal between highly qualified firms.
- When adding additional criteria make sure you are not just further expanding on a selection criteria which is already listed. This can cause great confusion for the evaluation boards and the A-E firms. If further expansion of a selection criteria is required, it should be done within the existing criteria. *For example:*

It may be important to the success of the project that the A-E firm have a well developed quality control system. This could be added as an additional criteria. However, if the intent was to ensure that the proposed project manager was trained in the use of a particular quality control system, it would be more appropriate to make this a subset of professional qualifications.

Exhibit 3-8

Communication is the key to the process. When done on a regular basis, personnel from both the design division and the contracts division will become more attuned to the other division's characteristics and responsibilities.

Design division personnel should become accomplished at translating technical jargon into plain English.

Contracts division personnel should become adept at identifying items in the scope of A-E services which require tailored selection criteria to ensure the special capabilities are acquired.

Together they will be successful in providing the selection boards relevant selection criteria for their evaluation process.

SELECTION PROCESS

Public Announcement Once the selection criteria have been developed, the project is ready to be announced.

As with other forms of contracting, there are several methods of making public announcements (See Exhibit 3-9) other than the CBD synopsis.

PUBLICIZING A-E SERVICES

FAR 5.205(d)

Contracting officers shall publish notices of intent to contract for architect-engineering services as follows:

- (1) Except when exempted*, synopsize each proposed contract action for which the total fee (including phases and options) is expected to exceed the small purchase limitation. Reference shall be made to the appropriate CBD Numbered Note.

[When the contract action is not required to be synopsized per the above, the contracting officer shall display a notice of the solicitation or a copy of the solicitation in a public place at the contracting office.]

- (2) When the total fee is expected to **exceed** \$10,000 (\$5,000 for Defense activities), but **not exceed** \$25,000, the contracting officer shall

disseminate information by displaying in a public place at the contracting office issuing the solicitation, an unclassified notice of the solicitation or a copy of the solicitation satisfying the requirements of general format, and information not covered in the numbered notes (if used). Such information shall be posted not later than the date the solicitation is issued and remain posted for at least **10 days** regardless of the date of award. Such information shall remain posted until after offers have been opened.

Other optional publicizing methods are also authorized:

- Preparing periodic handouts listing proposed contracts and displaying them.
- Assisting local trade associations in disseminating information to their members.
- Making brief announcements of proposed contracts to newspapers, trade journals, magazines, or other mass communication media for publication without cost to the Government.
- Placing paid advertisements in newspapers or other communications media.

Exhibit 3-9

* See FAR 5.202 for list of exemptions.

3.4 Publish in the CBD There may be times when, due to extenuating circumstances, you may need to use alternate methods to announce the requirement. However, in the vast majority of cases, when the contract is expected to **exceed the small purchase limitation**, the announcement shall be published in the Commerce Business Daily (CBD).

Exhibit 3-10 describes the type of information which should be included in a CBD announcement using the standard 17 item format.

CBD ANNOUNCEMENT INFORMATION

- Location of the work.
- Synopsis scope of A-E services.
- Specifically tailored selection criteria, their relative order of importance, and any assigned weighting.
- Dollar range of the anticipated contract.
- Type of contract proposed for the A-E services.
- Security classifications, and limitations on eligibility (if any).
- Date by which responses to the notice must be received, including the submission of the SF 254 if not already on file.
- Point of contact from the contracts division (not the project manager or design personnel).

Exhibit 3-10

NOTE:

The information published in the CBD announcement is critical to the selection process. No deviation from the synopsis scope or selection criteria can take place once the announcement has been published. Any changes after publication would void the selection process and the required compliance with the Brooks Act. If changes are required, a CBD re-announcement is required.

FAR 5.203(c)

Agencies shall allow at least **30 days' response time** from the date of publication of a proper notice of intent to contract for architect-engineer services or before issuance of a basic ordering agreement or similar arrangement.

SELECTION PROCESS

Item number 17 (Description) of the CBD format is used for a clear and concise description of the A-E services required:

FAR 5.207(c)(2)(xi)

"For A-E projects ... for which the supply or service codes are insufficient, provide details with respect to: location, scope of services required, cost range and limitations, type of contract, estimated starting and completion dates, and any significant evaluation factors."

The description should be written to maximize competition but still allow an A-E firm to make an informed business decision as to whether their firm is competitively qualified to do the work. This description is limited to 12,000 textual characters (approximately three and one-half single spaced pages).

The synopsis scope of A-E services and selection criteria are to be used in completing item number 17. The completed synopsis is then transmitted to the CBD for publication.*

If you have performed your job correctly, all you have to do now is sit back and watch the responses flow in. However, numerous phone calls from A-E firms asking for clarification could be a sign that the announcement, as written, is deficient.

3.5 Receive and Process Responses

About 20 days after the announcement has been published in the CBD, your office will probably begin to receive responses from interested A-E firms. You may think the announcement has fallen on deaf ears when suddenly the flood gates open and the responses begin pouring in.

There are several tasks that need to be accomplished as responses are received at the office delegated to receive requests:

- A response log must be established for the project. A log of receipts will be kept in a secure location. The identity of the firms responding is confidential information and is used only on a **need to know basis**.
- Response packages are time/data stamped upon receipt.
- Someone must check through the response package to see if the SF 255, if requested, and SF 254 were included. If the SF 254 is missing, there are two possibilities:
 - (1) The A-E firm responding believes their SF 254 is already on file with your office, or
 - (2) The A-E firm failed to include the SF 254 in the package.

* Note: Use Code R in Item #1 of the CBD format for sources sought for A-E services (FAR 5.207(b)(4)(1)) and Code C in item #6 to identify services as A-E (FAR 5.207(g)(1)).

Office data files must be checked to see if the SF 254 is on file. (See Exhibit 2-6.) If so, the SF 254 must be included with the package, logging the package in as complete. If SF 254 is not on file or is on file at another office, the A-E firm in question must be contacted to ascertain the status of the SF 254 and advised to submit their SF 254 (and SF 255, if requested and missing) prior to the CBD closing date for receipt of responses.

NOTE:

The responsibility for receipt and processing of responses varies from agency to agency. Some agencies have determined it to be the design division's responsibility, other agencies argue it to be a contracting function. For purposes of instruction, the contracting officer has been determined to be the responsible party.

3.6 Evaluation Board Procedures

Everything that has been done up to this point has been accomplished to ensure that the evaluation board can identify the most highly qualified A-E firm to provide the required services. We will now look at the actual evaluation board's charter and function.

Exhibit 3-11 describes the regulations which govern the composition of the evaluation boards.

EVALUATION BOARDS

FAR 36.602-2

(a) When acquiring architect-engineer services, an agency shall provide for one or more permanent or ad hoc architect-engineer evaluation boards (which may include preselection boards when authorized by agency regulations) to be composed of members who, collectively, have experience in architecture, engineering, construction, and Government related acquisition matters. Members shall be appointed from among highly qualified professional employees of the agency or other agencies, and if authorized by agency procedure, private practitioners of architecture-engineering or related professions. One Government member of each board shall be designated as the chairperson.

(b) No firm shall be eligible for award of an architect-engineer contract during the period in which any of its principals or associates are participating as members of the awarding agency's evaluation board.

Exhibit 3-11

SELECTION PROCESS

NOTE:

In Exhibit 3-11, the term "preselection" is used when discussing more than one evaluation board. This term infers that evaluation boards are selection boards. In common usage you will hear the two terms, **evaluation** boards and **selection** boards, used interchangeably. It is acceptable as long as you understand that the actual selection is done only by the selection authority. See Chapter 3.7.

In Exhibit 3-11, there are three key points described:

(1) ESTABLISHMENT OF EVALUATION BOARDS BY AGENCIES

- Each agency is given the authority to establish evaluation boards (either one board or two). Since some agencies are large and geographically spread out in various locations, this authority is usually redelegated further down to the regional activity level. In very large agencies, the authority to establish boards will be delegated to the various contracting activities. Normally the delegated authority will be limited to a specific **dollar threshold**, after which the authority moves up one level until, finally, the agency head is reached.
- If the agency head has made provisions for the use of a **preselection board**, these boards typically follow the same procedures as evaluation boards. However, each agency may view the function of the preselection boards differently. *For example:*

One agency may determine that the function of the preselection board is only to identify all of the responding firms who are highly qualified to do the work. In this particular case, the preselection board will slate* all the firms responding who are highly qualified, no matter how many firms are listed.

Another agency may require the preselection boards to not only identify the highly qualified firms, but also to reduce the slate to only the five or six best qualified firms (but not ranked in order of preference).

It is important to know what your agency's policy is concerning the function of the preselection board.

- Policy varies as to whether an individual may **serve on both boards** (preselection and evaluation) for the same project.

*Slate is the term used to describe the list of firms recommended by the preselection board.

(2) COMPOSITION AND QUALIFICATION OF THE BOARDS

- Boards (both evaluation and preselection if authorized), will be composed of members who, collectively, have **experience in**:
 - Architecture,
 - Engineering,
 - Construction,
 - Government and related acquisition matters.
- If an agency is using ad hoc evaluation boards established for a particular project, its procedures will probably tailor the composition of the boards to the specific project. Some agencies also require board members to be **licensed** architects or engineers.
- Members shall be appointed from among **highly qualified professional employees** of the agency, or other agencies. Since the selection process is so critical to the success of the project, only highly trusted and proven personnel should be utilized.
- If an agency does not have highly qualified personnel to form an entire evaluation board and cannot obtain assistance from another agency, it can authorize procedures whereby **private practitioners** of architecture, engineering, or related professions are appointed evaluation board members. However, if this method is used, the participating private practitioners will be restricted from obtaining work from that particular agency for the period of time while serving as a board member. The use of this procedure is rare, but it is a valuable option to have available.

(3) CHAIRPERSON OF THE BOARDS

- The chairperson shall be a **Government member**. So when using private practitioners it is mandatory that a least one member of the board, the chairperson, is a Government employee.

Now that we know who can be on the evaluation boards, we need to learn what the evaluation boards are required to do. Exhibit 3-12 provides a list of the functions that the evaluation boards are to perform during the selection process.

FUNCTIONS OF EVALUATION BOARDS

FAR 36.602-3

Under the general direction of the head of the contracting activity, an evaluation board shall perform the following functions:

- (a) Review the current data files on eligible firms and responses to a public notice concerning the particular project.
 - Qualifications data, SF 254
 - Project specific qualifications, SF 255
 - Past performance on Government projects, SF 1421
 - Amount of awards from the Government (if required by the agency).
- (b) Evaluate the firms in accordance with the selection criteria published.
 - The boards must use the selection criteria published for the evaluation of each firm that responded to the announcement. The selection criteria can not be modified by either board or the selection authority.
- (c) Hold discussions with at least three of the most highly qualified firms regarding concepts and the relative utility of alternative methods of furnishing the required services. (Preselection Boards do not rank in order of preference.)
 - No discussions are conducted by preselection boards.
 - Discussions held by the Evaluation Board usually take the form of an interview. The A-E firm may also be requested to give a short presentation, followed by a period of Government questioning.
 - Interviews may be conducted in person or over the telephone; at the Government's facility or at the A-E's offices (depending on agency procedures).
- (d) Prepare a selection report for the agency head or other designated selection authority recommending, in order of preference (ranking is done by the evaluation board only), at least three firms that are considered to be the most highly qualified to perform the required services. The report shall include a description of the discussions and evaluation conducted by the board to allow the selection authority to review the considerations upon which the recommendations are based.
 - A minimum of three firms on the list are mandatory for valid competition.
 - Each agency has developed content and format requirements for the board reports. You must prepare board reports for both the preselection (if used) and evaluation boards. The report must be in enough detail for the selection authority to make an informed final selection.

Exhibit 3-12

Board Reports

The bulk of the selection process is accomplished by the preselection and evaluation boards. In fact, the majority of the work required to make a selection is in developing the information which will be contained in the various board reports. The accuracy and completeness of the board reports are crucial to the success of the selection process.

Exhibit 3-13 lists the topics which should be covered in the preselection (or slate) board report.

PRESELECTION BOARD REPORT

Each agency will have specific formats and procedures for formal board reports. However, the preselection board report should contain, as a minimum, the following information:

- ✓ Brief description of the project and the required services.
- ✓ The selection criteria used (including weighting and/or priorities). It must be the same selection criteria as contained in the public announcement.
- ✓ Names, in alphabetical order, and addresses of the firms recommended for the slate. The number of firms recommended for the slate is normally dictated by agency policy based on the complexity of the project. A minimum of three is always required.
- ✓ The attributes of each firm slated in relation to each selection criteria published should be specifically addressed.
- ✓ Additional documentation is required when location criteria is specified and when agency procedures require the use of selection criteria on the amount of previous Government contract awards, in an effort to spread the work. The report must specifically document that an appropriate number of firms remain after the application of these criteria, given the nature and size of the project.
- ✓ A summary statement that the recommended firms have been evaluated by the board to be the most highly qualified to perform the published scope of A-E services. All firms submitting SF 254/255 packages were evaluated using the published selection criteria and thorough review of their prior performance record.
- ✓ A list of all firms considered during the evaluation process. The response log which was compiled earlier can be used as a check list to ensure all firms that submitted valid SF 254/255 packages were evaluated.
- ✓ Specific reasons, based on the published selection criteria, for not recommending each firm that was not slated. The documentation must clearly identify areas where each firm not slated was either, not qualified, or not as well qualified as the firms slated. It should be noted here that all firms have been evaluated using each selection criteria published, even though each selection criteria may not have been specifically addressed.
- ✓ All members of the preselection board must sign the completed board report.

Exhibit 3-13

SELECTION PROCESS

The **preselection board** must

- identify at least three of the most highly qualified firms,
- pass their slate or report to the evaluation board for ranking, and
- re-evaluate a three-firm slate if returned by the evaluation board as a result of their elimination of a firm.

The evaluation board cannot add names to the slate. This is why most agencies have procedures that require the preselection board to slate more than three firms, if possible, thus eliminating any need to return the slate.

NOTE:

Agency procedures vary on how the preselection board report is handled once it has been signed. Some agencies require the selection authority to first review the report and sign it prior to passing it to the evaluation board for action. Other agencies have the slate board report delivered directly to the evaluation board for their evaluation. You must comply with your particular agency's procedures.

Notification of Firms
Not Slated

Once the board report has been approved, the firms not slated should be notified by letter stating only ① that the firm failed to make the slate (or short list) and ② that the Government appreciates their interest and encourages them to continue to pursue award of Government projects. No information concerning the identities of the slated firms is to be released at this time. Some agencies, however, do not notify the A-Es of the board results at the time the board report is approved, preferring to wait until contract award is made.

Debriefing

In general, as a courtesy, agencies follow the guidance given by the FAR for debriefing unsuccessful offerors. The only factor that varies widely from agency to agency is the timing of the debriefing. *For example:*

GSA will not debrief any A-E firms until the contract is awarded. When a firm that is not slated receives a notification letter, it will not receive a debriefing prior to the award of the contract.

Other agencies feel that it is unreasonable to make the A-E's wait until contract award before being informed of the selection. Therefore, these agencies allow debriefings, if requested by the A-E firm, any time after the A-E receives notification that their firm was not selected.

The contracting officer will perform the debriefings, using the slate board report as supporting information for the basis of the selection decision.

Debriefing shall include the Government's evaluation of the significantly weak or deficient factors in the A-E statement of qualifications.

Debriefing shall not include a point-by-point comparison with other A-E firms nor reveal the relative standing of competitors, the evaluation scoring, nor any information that is not releasable under Freedom of Information Act.

No matter how the chain of events flow, the slate or preselection report will ultimately be delivered to the evaluation board so that they may commence their evaluation. Once evaluations are complete, the evaluation board now too, must develop a board or selection report to document their actions.

Exhibit 3-14 is a list of the topics which should be covered in the evaluation board report. Board reports, correspondence, and any other documentation relating to the selection process must be safeguarded on a strict need to know basis.

EVALUATION OR SELECTION BOARD REPORT

- Brief description of the project and scope of A-E services.
- Types of professional services required.
- Government estimate of final contract amount or fee.
- Names and addresses of the recommended firms, in order of preference. At least three firms must be ranked. Some agencies require all firms slated to be ranked.
- Each selection criteria published in the CBD will be addressed for each firm slated.
- Specific explanation, based on the published selection criteria of the reasons the board recommends the number one ranked firm over the number two ranked firm.
- Specific explanation, based on the published selection criteria, of the reasons the board recommends the number two ranked firm over the number three ranked firm.
- Specific explanation, based on the published selection criteria, of the reasons the board recommends the number three ranked firm over the other firms slated.
- All members of the evaluation board must sign the completed report.

Exhibit 3-14

SELECTION PROCESS

3.7 Selection Authority Makes Final Selection

The work performed by the evaluation boards in developing sound recommendations which are well documented is vital to the selection process. However, the ultimate selection rests with the selection authority whose rights and responsibilities are described in Exhibit 3-15.

SELECTION AUTHORITY

FAR 36.602-4

- (a) The final selection decision shall be made by the agency head or a designated selection authority.
- (b) The selection authority shall review the recommendations of the evaluation board and shall, with advice of appropriate technical and staff representatives, make the final selection. The final selection shall be a listing, in order of preference, of the firms considered most highly qualified to perform the work. If the firm listed as the most preferred is not the firm recommended as the most highly qualified by the evaluation board, the selection authority shall provide in the contract file, a written explanation of the reason for the preference. All firms on the final selection list are considered “selected firms” with which the contracting officer may negotiate.
- (c) The selection authority shall not add firms to the selection report. If the firms recommended in the report are not deemed to be qualified, or the report is considered inadequate for any reason, the selection authority shall record the reasons and return the report through channels to the evaluation board for appropriate revision.
- (d) The board shall be promptly informed of the final selection.

Exhibit 3-15

Item (a) above:

Agency heads will delegate the selection authority to various levels. Most agency heads will only act as the selection authority for contracts when the estimated contract price is significant. Each individual within the agency who has the delegated responsibilities of the selection authority will probably have certain dollar value limitations on their authority. You will have to know and understand your agency’s policies and procedures concerning the selection authority approval levels.

Item (b):

There are **three important aspects** to this paragraph which you must thoroughly understand:

1. Actions the Selection Authority is Required to Perform:
 - Review the recommendations of the evaluation board(s).

- Obtain advice from technical and staff representatives.
 - Make the final selection.
 - If the selection authority does not select the firms in the order of preference as established by the evaluation boards, a written justification must be provided in the contract file.
2. Format of the Final Selection.
 - Final selection shall be a listing, in order of preference, of the firms considered most highly qualified to perform the work.
 3. All Firms on Final Selection List are Considered "Selected Firms."
 - This aspect of the Brooks Act is very important as it ensures that the selected A-E firm does not take an unreasonable position during negotiations because the contracting officer has the option to break off negotiations with the most preferred firm and begin negotiations with the next ranked firm. The A-E's therefore, recognize that if they try to negotiate an unreasonable contract amount, the Government can always cease negotiations and go to the next firm. Absent this flexibility, you would have to repeat the lengthy selection process each time it is necessary to terminate negotiations because of an unreasonable position taken by an A-E.

FAR 36.606(a)

NOTE:

Unless otherwise specified by the selection authority, the final selection authorizes the contracting officer to commence negotiations, beginning with the most preferred firm in the final selection.

Item (c):

Some restrictions are placed on the selection authority's powers, the most important of which is the statement which prohibits the selection authority from adding firms to the evaluation board report. Controls such as these are required to maintain the public's confidence in the Government's ability to act in a fair and impartial manner.

SELECTION PROCESS

Item (d):

In the vast majority of cases, the selection authority will make a final selection which is in total agreement with the evaluation board because

Boards are made up of professional members of the agency and are chosen because of their experience, and

All pertinent information has been included in the report and displayed in such manner that substantiates and facilitates the review.

Sometimes, however, the selection authority will discover facts which greatly changes the selection outcome.

Release of Information
on Firm Selection

FAR 36.607

After final selection has taken place, the contracting officer

"may release information, identifying only the A-E firm with which a contract will be negotiated for certain work. The work should be described in any public release only in general terms, unless information relating to the work is classified. If negotiations are terminated without awarding a contract to the highest rated firm, the contracting officer may release that information and state that negotiations will be undertaken with another (named) A-E firm. When an award has been made, the contracting officer may release award information."

3.8 Short Selection Procedures

There are two separate "short selection" procedures for selecting firms for contracts not expected to exceed the small purchase limitation.

1. SELECTION BY THE BOARD

All of the procedures for the selection of firms expected to exceed the small purchase limitation, still apply. The big difference is that there is no selection authority involvement in making the final selection. The evaluation board serves as the selection board, and the final selection is the evaluation board report.

Exhibit 3-16 is a description of the procedures to be used when the selection is made by the board.

SELECTION BY THE BOARD

FAR 36.602-5(a)

The board shall review and evaluate A-E firms in accordance with the normal selection procedures used for contracts which exceed the small purchase limitation, except that the selection report shall serve as the final selection list and shall be provided directly to the contracting officer. The report shall serve as an authorization for the contracting officer to commence negotiations.

Exhibit 3-16

2. SELECTION BY THE CHAIRPERSON OF THE BOARD

This procedure is identical to normal selection procedures exceeding the small purchase limitation, except that the board has no action other than to agree to allow the chairperson to perform the evaluation. The chairperson must perform all of the procedures that would normally be performed by an entire board, including a board report.

To ensure the integrity of the process, since the chairperson of the board is the only person in the evaluation process, the selection authority will again make the final selection. The selection authority has the same rights and responsibilities as described earlier in this chapter. Exhibit 3-17 is a description of the procedures to be used when the selection is made by the board.

SELECTION BY THE CHAIRPERSON OF THE BOARD

FAR 36.602-5(b)

When the board decides that formal action by the board is not necessary in connection with a particular selection, the following procedures shall be followed:

- (1) The chairperson of the board shall perform the functions required for the normal selection procedures for contracts exceeding the small purchase limitation.
- (2) The agency head or designated selection authority shall review the report and approve it or return it to the chairperson for appropriate revision.
- (3) Upon receipt of an approved report, the chairperson of the board shall furnish the contracting officer a copy of the report which will serve as an authorization for the contracting officer to commence negotiations.

Exhibit 3-17

SELECTION PROCESS

Either or both of the short processes may be used to select firms. However, only one method is used on any one particular selection action. Agency heads can approve the use of either, or both, of these procedures. Most agencies allow both methods to be used because each individual selection action is different and the choice is left to various activities.

There will be considerable time savings when using either of these two methods. Add this to the time savings of not having to issue a synopsis in the CBD nor having a preselection board, and you have a very responsive method of procuring A-E services under the small purchase threshold. The time savings are derived from eliminating additional review steps, not the actual evaluation method. This is important, because the emphasis is still on making a systematic evaluation of the A-E firms to determine the most highly qualified firm to do the work, which is the intent of the Brooks Act.

The board reports shall reflect the appropriate amount of detail to support the decision. If a protest is lodged with the GAO, the board report will be the document reviewed by the GAO for their determination. Therefore, whichever process is used, special care must be exercised to ensure that the reports are accurate and complete.

Q & A ' S

Now that you have completed this chapter, you should be able to answer the questions posed at the beginning.

- (1) If Brooks Act procedures are followed closely there is no way that favoritism can control the outcome of the selection. You have learned about the various layers of control and review which must be met throughout the process. If the Brooks Act procedures are to be corrupted, for any one procurement, it would take the coordinated efforts of a number of individuals.*
- (2) Brooks Act procedures most definitely promote full and open competition. What is not always well understood is that the competition is based on the professional qualifications, specialized experience, and capacity to do the work. The responsibility rests on the Government to ensure that the scope of A-E services and the selection criteria correctly reflect the services required. These are then published in the CBD where A-E firms can judge for themselves if they are competitive. The evaluation board and selection authority identify at least three of the most highly qualified firms, rank them in order of preference, and pass the list to the contracting officer for negotiations.*
- (3) The Government's concern to receive a fair and reasonable price for services is intrinsic to the Brooks Act. The reason at least three firms are selected is that the most preferred firm knows if their price for the services is unreasonable, the Government can terminate negotiations and negotiate with the second most preferred firm. So if the A-E firm really desires to be awarded the contract, they must present the Government with a fair and reasonable price position.*

Rebecca and Mike discovered that Brooks Act procedures are a viable and competitive means of procuring professional services. They both came to the correct conclusion that the author of the article did not understand Brooks Act procedures very well. In fact, the author's last statement, about needing a different set of procedures for selection of professional services on the basis of demonstrated competence, public announcement, qualifications of the type of professional services required at a fair and reasonable price, made it clear that he/she didn't understand that this is what Brooks Act already does.

SELECTION PROCESS

CHAPTER 4

NEGOTIATION AND AWARD

TEMPUS FUGIT

Tim hung up the phone and turned to his “IN” basket where he slid the top document off the pile. “Uh, oh,” he thought to himself. “How fast time flies! It seems like only yesterday that this project was synopsized and here it is, time to negotiate that cafeteria project.”

The memo from the Design/Construction Department asks Tim to appoint a negotiation team so that the cafeteria project can be awarded as quickly as possible. NASA has been putting the pressure on, and they want to know how soon the contract can be awarded.

“But wait a minute!” Tim thought.

“Aren't there several tasks that must be completed before we can sit down and negotiate?”

Even after we have finished negotiations, doesn't it takes time to obtain approvals?

Furthermore, what happens if we can't negotiate a fair and reasonable price with the A-E Firm selected?”

COURSE LEARNING OBJECTIVES

At the completion of this chapter, you will be able to:

Overall: Perform all tasks associated with the negotiation and award of an A-E contract.

Individual:

4.1 Issue Request For Proposals.

4.2 Evaluate Government Estimate.

4.3 Evaluate A-E's Proposal.

- Obtain Cost and Pricing Data (If required or desired).

4.4 Prepare for Negotiations.

- Establish Objectives.
- Set Date, Notify Participants.

4.5 Negotiate.

- Evaluate for Fair and Reasonable Price.
- Go to Next Firm on List if Not Fair and Reasonable.

4.6 Obtain Approvals and Issue Contract.

INTRODUCTION TO NEGOTIATION AND AWARD

Definition

FAR 15.102

Negotiation

"is a procedure that includes the receipt of proposals from offerors, permits bargaining, and usually affords offerors an opportunity to revise their offers before award of a contract. Bargaining -- in the sense of discussion, persuasion, alteration of initial assumptions and positions, and give-and-take -- may apply to price, schedule, technical requirements, type of contract, or other terms of a proposed contract."

In the A-E world, you negotiate a FEE, which is ultimately established by bargaining between buyer and seller:

1. Unlike other negotiations, however, the A-E selection and the awarding of a contract are separate discrete actions.
2. If negotiations are unsuccessful, the negotiation is abandoned with that firm, and the Government begins the negotiation procedure all over again with the second firm on the selection list.

Goals

The Government's intent, when it enters into negotiations with an A-E firm, is to reach an agreement that

- guarantees that it will receive a quality design product,
- obtained at a fair and reasonable price, and
- produced in a timely manner.

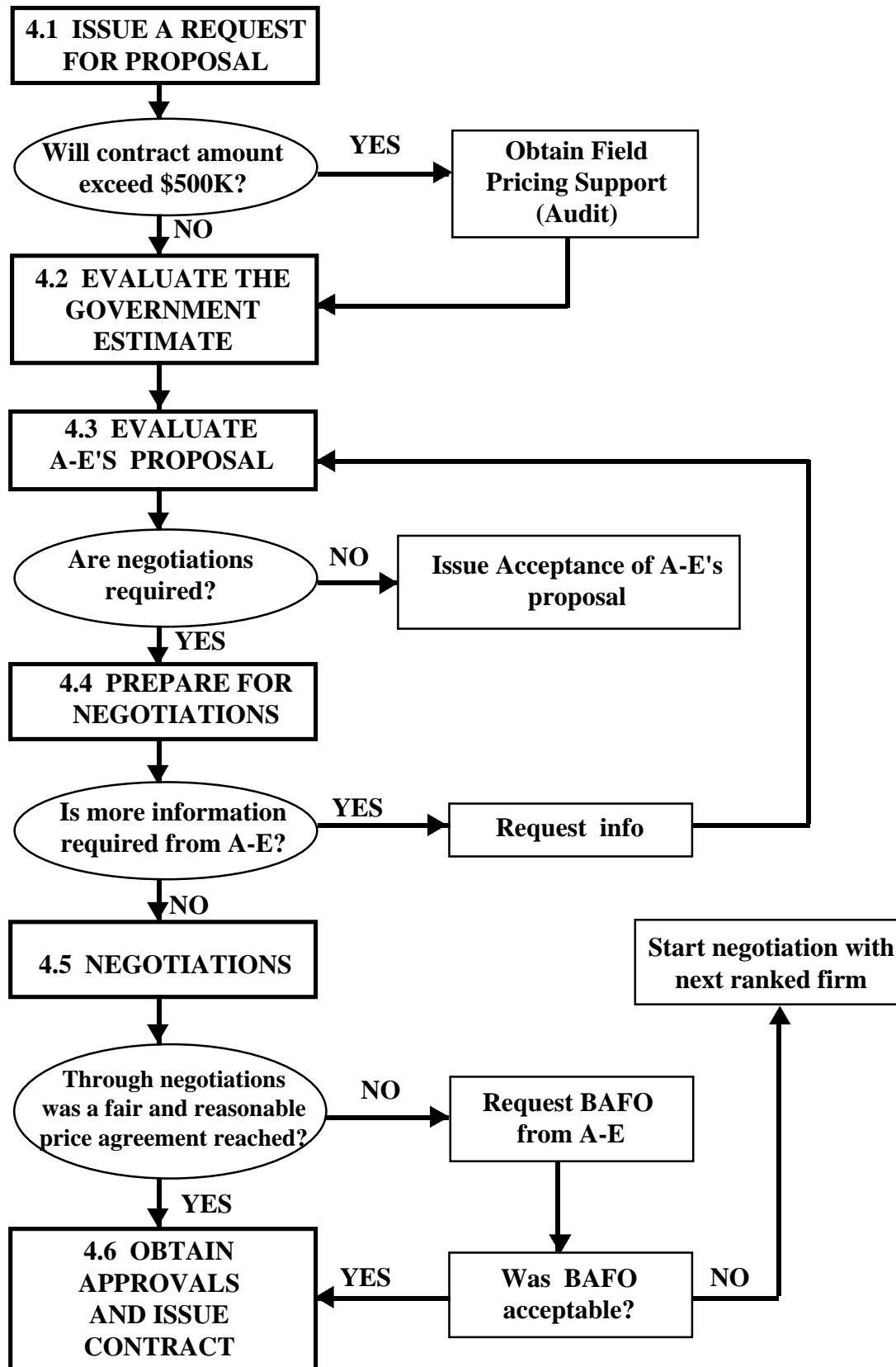
{Not surprisingly, in the ultimate construction product, the most significant source for potential success or failure lies in the drafting of the specifications and drawings by the A-E firm with whom you negotiate and award a contract. }

Although negotiation techniques are basically the same as with any other "sole source" type of procurement, the elements in the A-E negotiation process differ somewhat.

Steps in Performance

The steps in negotiating and awarding an A-E contract are charted on the next page. Following the chart, each step is discussed in turn.

STEPS IN NEGOTIATION AND AWARD



STEPS IN NEGOTIATION AND AWARD

4.1 Issue Request For Proposals

Requests for proposals (RFP) are used in negotiated acquisitions to communicate Government requirements to prospective contractors and to solicit proposals from them.

After the selection of an A-E, the contracting officer must issue a request for an A-E fee proposal, stating clearly that the request is not an award or a commitment by the Government. The Request for Proposal should include, as a minimum, the elements listed in Exhibit 4-1:

ELEMENTS OF AN A-E RFP

- Complete scope of work.
- All applicable references.
- Clauses and provisions.
- Completion schedule.
- Point of contact in the procurement office.
- Instructions on how the A-E firm is to present their cost data.
- Statement as to the applicability of an option.
- Dates options will be executed.
- Date established for the return of the RFP.
- SF 252 which has been filled out, with the exception of award information and signatures.
- If the expected dollar amount exceeds the threshold for requiring certified cost and pricing data, a SF 1411 must also be included in the RFP package.

Exhibit 4-1

FAR 15.406-1(a)(2)

[Note that the RFP for A-E is exempt from the Uniform Contract Format. See your agency regulations for specific structure of RFP.]

FAR 36.606(b)

The Statement of Work must not inadvertently preclude the A-E firm from proposing the use of modern design methods.

FAR 53.236-2(a)

Standard Form 252, Architect - Engineer Contract, is illustrated on the next two pages. (Pending issuance of a new edition of the form, Block 8, Negotiation Authority, is deleted.)

Following the SF 252 is a brief synopsis of the clauses which are peculiar to an A-E RFP and the resultant contract.

CHAPTER 4

ARCHITECT-ENGINEER CONTRACT		1. CONTRACT NO.
		2. DATE OF CONTRACT
3A. NAME OF ARCHITECT-ENGINEER	3B. TELEPHONE NO. <i>(Include Area Code)</i>	
3C. ADDRESS OF ARCHITECT-ENGINEER <i>(Include Zip Code)</i>		
4. DEPARTMENT OR AGENCY AND ADDRESS <i>(Include Zip Code)</i>		
5. PROJECT TITLE AND LOCATION		
6. CONTRACT FOR <i>(General Description of services to be provided)</i>		
7. CONTRACT AMOUNT <i>(Express in words and figures)</i>		
8. NEGOTIATION AUTHORITY		
9. ADMINISTRATIVE, APPROPRIATION, AND ACCOUNTING DATA		

NEGOTIATION AND AWARD

10. The United States of America (called the Government) represented by the Contracting Officer executing this contract, and the Architect-Engineer agree to perform this contract in strict accordance with the clauses and the documents identified as follows, all of which are made a part of this contract:

If the parties to this contract are comprised of more than one legal entity, each entity shall be jointly and severally liable under this contract.
The parties hereto have executed this contract as of the date recorded in Item 2.

	SIGNATURES	NAMES AND TITLES <i>(Typed)</i>
11. ARCHITECT ENGINEER OR OTHER PROFESSIONAL SERVICES CONTRACTOR		
A		
B		
C		
D		
12. THE UNITED STATES OF AMERICA		
		Contracting Officer

STANDARD FORM 252 BACK
REV. 10/83

Clauses Peculiar
to A-E Contracts

Include these clauses in all RFPs and contracts for A-E services:

- Responsibility of the Architect-Engineer Contractor
- Termination (Fixed Price Architect-Engineer Contracts)
- Suspension of Work
- Payments Under Fixed-Price Architect-Engineer Contracts
- Design Within Funding Limitations
- Changes - Fixed Price, Alternate III

RESPONSIBILITY OF THE ARCHITECT-ENGINEER CONTRACTOR

FAR 52.236-23

(a) The contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by the contractor under this contract. The contractor shall, without additional compensation, correct or revise any errors or deficiencies in its designs, drawings, specifications, and other services.

(b) Neither the Government's review, approval or acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract, and the contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the contractor's negligent performance of any of the services furnished under this contract.

(c) The rights and remedies of the Government provided for under this contract are in addition to any other rights and remedies provided by law.

(d) If the contractor is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.

Exhibit 4-2

FAR 36.609-2(a)

A-Es shall be required to make necessary corrections at no cost to the Government when the designs, drawings, specifications, or other items or services furnished contain any errors, deficiencies, or inadequacies.

The basis for A-E responsibility is the general rule of law applied to all professionals:

The architect-engineer, by signing the contract, warrants that it has the ordinary skill, knowledge, and judgment possessed by members of its profession, and that it will use reasonable and ordinary care and diligence in performing the work.

TERMINATION (FIXED PRICE ARCHITECT-ENGINEER)**FAR 52.249-7**

(a) The Government may terminate this contract in whole or, from time to time, in part, for the Government's convenience or because of the failure of the contractor to fulfill the contract obligations. The contracting officer shall terminate by delivering to the contractor a Notice of Termination specifying the nature, extent, and effective date of the termination. Upon receipt of the notice, the contractor shall (1) immediately discontinue all services affected (unless the notice directs otherwise), and (2) deliver to the contracting officer all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process.

(b) If the termination is for the convenience of the Government, the contracting officer shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services.

(c) If the termination is for failure of the contractor to fulfill the contract obligations, the Government may complete the work by contract or otherwise and the contractor shall be liable for any additional cost incurred by the Government.

(d) If, after termination for failure to fulfill contract obligations, it is determined that the contractor had not failed, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Government.

(e) The rights and remedies of the Government provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

*Exhibit 4-3***FAR 49.503(b)**

The termination clause for A-E contracts is different from the supply and construction contract clause, in that there is only one clause to administer, rather than two. Note that termination for convenience is mentioned in paragraph (b) of the clause and default in paragraph (c), describing both in simple and direct language.

SUSPENSION OF WORK

FAR 52.212-12

(a) The contracting officer may order the contractor, in writing, to suspend, delay, or interrupt all or any part of the work under this contract for the period of time that the contracting officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the contracting officer in the administration of this contract, or (2) by the contracting officer's failure to act within the time specified in this contract (or within the time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the contractor or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract.

(c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the contractor shall have notified the contracting officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of such suspension, delay, or interruption, but not later than the date of final payment under the contract.

Exhibit 4-4

FAR 12.505(a)

This clause essentially authorizes the Government to suspend the A-E's work for "a reasonable period of time." If suspended for an unreasonable period, the clause provides for an adjustment for increases excluding profit in the costs and time for performance.

PAYMENTS UNDER FIXED-PRICE ARCHITECT-ENGINEER CONTRACTS**FAR 52.232-10**

(a) Estimates shall be made monthly of the amount and value of the work accomplished and services performed by the contractor under this contract which meet standards of quality established under this contract. The estimates shall be prepared by the contractor and accompanied by any supporting data required by the contracting officer.

(b) Upon approval of the estimate by the contracting officer, payment upon properly executed vouchers shall be made to the contractor, as soon as practicable, of 90 percent of the approved amount, less all previous payments; *provided*, that payment may be made in full during any months in which the contracting officer determines that performance has been satisfactory. Also, whenever the contracting officer determines that the work is substantially complete and that the amount retained is in excess of the amount adequate for the protection of the Government, the contracting officer may release the excess amount to the contractor.

(c) Upon satisfactory completion by the contractor and acceptance by the contracting officer of the work done by the contractor under the "Statement of Architect-Engineer Services", the contractor will be paid the unpaid balance of any money due for work under the statement, including retained percentages relating to this portion of the work. If the Government exercises the option under the Option for Supervision and Inspection Services clause, progress payments as provided for in (a) and (b) above will be made for this portion of the contract work. Upon satisfactory completion and final acceptance of the construction work, the contractor shall be paid any unpaid balance of money due under this contract.

(d) Before final payment under the contract, or before settlement upon termination of the contract, and as a condition precedent thereto, the contractor shall execute and deliver to the contracting officer a release of all claims against the Government arising under or by virtue of this contract, other than any claims that are specifically excepted by the contractor from the operation of the release in amounts stated in the release.

(e) Notwithstanding any other provision in this contract, and specifically paragraph (b) of this clause, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

*Exhibit 4-5***FAR 32.111(d)(1)**

The A-E payments clause is similar to the supply contract clause. Under this clause, payments are

- authorized to be made monthly on the basis of estimates prepared by the A-E and approved by the contracting officer, and
- permitted in full for any month which the contracting officer determines that performance is satisfactory.

The Prompt Payment Act also applies to progress payments for A-E firms.

DESIGN WITHIN FUNDING LIMITATIONS

FAR 52.236-22

(a) The contractor shall accomplish the design services required under this contract so as to permit the award of a contract, using standard Federal Acquisition Regulation procedures for the construction of the facilities designed at a price that does not exceed the estimated construction contract price as set forth in paragraph (c) below. When bids or proposals for the construction contract are received that exceed the estimated price, the contractor shall perform such redesign and other services as are necessary to permit contract award within the funding limitation. These additional services shall be performed at no increase in the price of this contract. However, the contractor shall not be required to perform such additional services at no cost to the Government if the unfavorable bids or proposals are the result of conditions beyond its reasonable control.

(b) The contractor will promptly advise the contracting officer if it finds that the project being designed will exceed or is likely to exceed the funding limitations and it is unable to design a usable facility within these limitations. Upon receipt of such information, the contracting officer will review the contractor's revised estimate of construction cost. The Government may, if it determines that the estimated construction contract price set forth in this contract is so low that award of a construction contract not in excess of such estimate is improbable, authorize a change in scope or materials as required to reduce the estimated construction cost to an amount within the estimated construction contract price set forth in paragraph (c) below, or the Government may adjust such estimated construction contract price. When bids or proposals are not solicited or are unreasonably delayed, the Government shall prepare an estimate of constructing the design submitted and such estimate shall be used in lieu of bids or proposals to determine compliance with the funding limitation.

(c) The estimated construction contract price for the project described in this contract is \$ ____.

Exhibit 4-6

This clause states that the A-E is responsible for assuring that the estimated cost of construction (ECC) is not exceeded at the time of bidding. When the Government goes out to bid for construction and all bids exceed the ECC, it is referred to in the contract office as a "Bid Bust." Note, however, that the clause states that the redesign responsibility does not arise when excessive bids are beyond the control of the architect-engineer. The clause need not be inserted in the contract if:

1. HCA determines in writing that performance is more important than cost and additional funding can be expected,
2. Design is for standard structure not intended for specific location,
3. Little or no design effort is involved.

FAR 36.609-1(c)

CHANGES — FIXED-PRICE (Alternate III)**FAR 52.243-1**

(a) The contracting officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in the services to be performed.

(b) If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, the contracting officer shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract.

(c) The contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the contracting officer decides that the facts justify it, the contracting officer may receive and act upon a proposal submitted before final payment of the contract.

(d) If the contractor's proposal includes the cost of property made obsolete or excess by the change, the contracting officer shall have the right to prescribe the manner of the disposition of the property.

(e) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the contractor from proceeding with the contract as changed.

(f) No services for which an additional cost or fee will be charged by the Contractor shall be furnished without the prior written authorization of the contracting officer.

*Exhibit 4-7***FAR 43.205(a)(4)**

The Changes clause, Alternate III, is a special, very important clause for changes that must be made in an A-E contract. It is basically the same clause that is used in construction contracts. (See Chapter 5.6)

There are other clauses which have variations for A-E contracts, such as:

- Definitions. (Alternate I) 52.202-1
- Security Requirements. (Alternate II) 52.204-2
- Prompt Payment for F-P A-E Contracts. 52.232-26
- Work Oversight in A-E Contracts. 52.236-24
- Subs. and Outside Associates and Consultants. 52.244-4
- Value Engineering -- A-E. 52.248-2*

* When utilized, the contract shall include a separately priced line item for mandatory V-E of the scope and level of effort required in the SOW per FAR 48.102(h).

4.2 Evaluate Government Estimate

You must obtain a detailed analysis of the estimated costs for an A-E service contract. (See Exhibit 4-8.)

GOVERNMENT ESTIMATE

FAR 36.605

- a. An independent Government estimate of the cost of A-E services shall be prepared and furnished to the contracting officer before commencing negotiations for each proposed contract or contract modification expected to exceed \$25,000. The estimate shall be prepared on the basis of a detailed analysis of the required work as though the Government were submitting a proposal.
- b. Access to information concerning the Government estimate shall be limited to Government personnel whose official duties require knowledge of the estimate. An exception to this rule may be made during contract negotiations to allow the contracting officer to identify a specialized task and disclose the associated cost breakdown figures in the Government estimate, but only to the extent deemed necessary to arrive at a fair and reasonable price. The overall amount of the Government's estimate shall not be disclosed except as permitted by agency regulations.

Exhibit 4-8

The \$25,000 dollar threshold may be further reduced by your agency policy. Some agencies require the preparation and evaluation of a Government estimate regardless of the dollar value. The important thing to remember is that the Government estimate must be prepared before receipt of the offeror's proposal or, if this is not feasible, prepared independently of the contracts office.

The estimate is prepared by a technically qualified person. The contract specialist must review the independent estimate and preferably with the negotiating team. You should also review for:

- correct formatting*,
- completeness, and
- mathematical errors.

Each agency has specially designed forms to be used for Government estimates and A-E proposals. For instructional purposes, a sample form follows:

Part 1 is the design portion of the estimate. (Those costs that are allocated to the 6% design cost limitation. See page 4-29.)

Part 2 is for the non-design portion; i.e., reproduction, options, printing, travel, per diem, and additional services.

* Should be same as format A-E uses to submit proposal.

NEGOTIATION AND AWARD

A-E FEE PROPOSAL/GOVERNMENT ESTIMATE

NAME OF FIRM

PROJECT TITLE

LOCATION

CONTRACT NO.

EST. COST OF CONSTRUCTION

PART I - DESIGN COSTS

DISCIPLINE	NO. OF DRAWINGS	EST. NO OF HOURS	HOURLY RATE	TOTAL ESTIMATED COST	
				BY A-E	BY CONSULTANT
A. PROJECT ENGINEER					
B. ARCHITECT					
DRAFTSMAN					
C. STRUCTURAL ENGINEER					
DRAFTSMAN					
D. MECHANICAL ENGINEER					
DRAFTSMAN					
E. ELECTRICAL ENGINEER					
DRAFTSMAN					
F. CIVIL ENGINEER					
DRAFTSMAN					
G. LANDSCAPE ARCHITECT					
DRAFTSMAN					
H. SPECS/REPORT WRITER					
TYPIST					
I. COST ESTIMATES					
J. OTHERS (SPECIFY)					
DWGS & LABOR TOTALS					

SUBTOTAL

G&A _____ % X \$ _____
 PROFIT _____ % X \$ _____

TOTAL DESIGN COSTS

PERCENT OF CONSTRUCTION COST

Total Design Costs CANNOT EXCEED 6% of the Estimated Cost of Construction

CHAPTER 4

PART II ENGINEERING SERVICES					
ITEMS	NO. OF DRAWINGS	EST.NO. OF HOURS	HOURLY RATE	DIRECT COST	TOTAL DIRECT COSTS
A. FIELD INVESTIGATIONS					
ARCHITECT					
ENGINEERS					
B. APPROVE SHOP DRAWINGS & MATERIALS					
ARCHITECT					
ENGINEERS					
C. AS-BUILTS					
ARCHITECT ENGINEER					
DRAFTSMAN					
D. INTERIOR DESIGN					
E. CONSULTATION					
F. REPRODUCTION	TOTAL (ITEMS A, B, C, D, & E)				
DRAWINGS \$	OVERHEAD % X = PROFIT % X =				
SPECIFICATIONS \$					
CALCULATIONS, ETC. \$					
TOTAL \$	REPRODUCTION				
G. SURVEY: _____ PARTY DAYS X _____ \$/DAY					=
H. SOIL STUDIES _____ BORINGS X _____ \$/ FT					=
I. TRAVEL - PER DIEM					
PREPARED BY: DATE:		PART III - SUMMARY TOTAL SECTION I TOTAL SECTION II GRAND TOTAL - FEE PROPOSAL			\$ \$ \$

The detailed analysis estimate is described in Exhibit 4-9 and illustrated on the following pages.

DETAILED ANALYSIS ESTIMATE

When making the detailed analysis estimate, the preparer must:

1. Develop a sheet count for each engineering discipline (architectural, civil, structural, mechanical, or other as appropriate.)
2. Estimate the manhour requirements for each engineering discipline required for each phase of services based on the sheet count. Consider whether it involves an engineer, architect, or draftsman.
3. Establish dollar amounts for site investigations, design services, consultants, and in some cases, shop drawing reviews, as-builts, construction contract consultation, and inspection services.
4. Apply hourly rates to the estimates of number of manhours. Include Break Out Sheet.
5. Estimate the numbers and kinds of meetings, consultations and presentations to the contracting office, or to the customer. These must also be a part of the Government estimate because they represent costs associated with the project.
6. Estimate travel requirements and expenses.
7. Establish Government furnished costs (such as a survey of the site, borings to determine soil conditions and underlying strata, pavement design, standard detail drawings, etc.) because those things represent costs that will become a credit to the Government.
8. Determine other direct costs, i.e. long distance telephone calls, reproduction costs, including blueprints, black and white prints, photographs, etc. (Commercial printing applies only to camera ready copy.)
9. Compute overhead.
10. Establish profit based on risk.

Exhibit 4-9

CHAPTER 4

ESTIMATE OF REQUIRED DRAFTING AND ENGINEERING			
	NO. OF SHEETS	DRAFTING TIME	ENGINEERING TIME
<u>MISCELLANEOUS</u>			
COVER	1	4	-
INDEX	1/2	2	-
BORINGS LOG	1	8	-
LOCATION MAP	1/2	2	-
SUBTOTAL MISC.	3	16	0
<u>CIVIL</u>			
ABBREVIATIONS & SYMBOLS	1	16	12
SITE DEMOLITION PLAN	1	36	20
SITE LAYOUT PLAN	1	14	32
PAVING DETAILS	1	16	8
GRADING PLAN	1	32	48
UTILITIES PLAN	1	12	28
UTILITIES DETAILS	1	20	16
LAWN SPRINKLER SYSTEMS	1	8	4
SUBTOTAL CIVIL	7	154	168
<u>ARCHITECTURAL</u>			
FLOOR PLAN	2	40	60
INTERIOR ELEVATIONS	4	24	24
EXTERIOR ELEVATIONS	2	16	16
SECTIONS AND DETAILS	1	36	36
DOOR & WINDOW SCHEDULES	1/2	30	12
DOOR DETAILS	1/2	8	8
WINDOW DETAILS	1/2	10	4
WALL SECTIONS	1	44	32
EQUIPMENT SCHEDULE	1/2	24	26
REFLECTED CEILING PLAN	-	-	-
MISCELLANEOUS DETAILS	-	-	-
SIGNS	1	20	10
FOOD SERVICE DETAILS	1	48	20
SUBTOTAL ARCH.	10	300	248

ESTIMATE OF REQUIRED DRAFTING AND ENGINEERING (cont.)			
	NO. OF SHEETS	DRAFTING TIME	ENGINEERING TIME
<u>STRUCTURAL</u>			
FOUNDATION PLAN	1	20	32
FOUNDATION DETAILS ON PLAN		12	20
FRAMING PLAN	2	30	26
FRAMING DETAILS & SECTIONS		14	24
SUPERSTRUCTURE DETAILS	1/2	18	32
BEAM, JOIST & COLUMN SCHEDULE	1/2	12	26
SUBTOTAL STRUCTURAL	4	106	160
<u>MECHANICAL</u>			
PLUMBING ROOF PLAN	2	28	32
PLUMBING DETAILS	1	8	8
PLUMBING SCHEDULES	1	12	4
SPRINKLER FLOOR PLAN	1	16	12
HEATING & A/C FLOOR PLAN	1	24	31
HEATING & A/C DETAILS	1	12	8
HEATING & A/C SCHEDULES	1	8	8
AIR SYSTEM PLAN	-	-	-
HYDRAULIC SYSTEM PLAN	-	8	2
HEATING & A/C CONTROLS	1	16	32
SUBTOTAL MECHANICAL	9	132	155
<u>ELECTRICAL</u>			
LIGHTING FLOOR PLAN	1	32	40
POWER FLOOR PLAN	1	34	44
ELECTRICAL DETAILS	1	24	8
ELECTRICAL SCHEDULES	1	12	8
SUBSTATION	-	10	20
COMMUNICATIONS PLAN	1	32	45
SUBTOTAL ELECTRICAL	5	144	165
TOTAL ALL	38	852	896

Data Used to
Prepare Estimates

- Scope of services required: Estimator must identify each requirement stated in the statement of services.
- Submittal requirements: Estimator must consider the number of copies required, the number of submittals and the estimated number of drawings. Also considered is the number of copies of the plans and specifications the A-E is required to submit.
- Value engineering: Studies are identified, as well as the types of construction estimates.
- Meeting requirements: Estimator must take into consideration the number and kinds of meetings the A-E is required to attend. Presentations are also accounted for.
- Travel requirements: Travel expenses and per diem require costing, either as a fixed amount or forward priced into the reimbursable pool.

The elements of cost which should be broken out in the Government estimate are illustrated in Exhibit 4-10.

COST ELEMENTS INCLUDED IN THE GOVERNMENT ESTIMATE

- A. Direct Labor Costs:** This is estimated by the number and type of construction drawings, bearing in mind the design, drafting, estimating, etc. required to develop these drawings. Also includes an appropriate number of manhours for a project coordinator, estimator, specification writer, and typist that perform work directly relating to the project. Determine if the Government requires utilization of a CADD (Computer Aided Design Drawings) system to develop design drawings. If so, include in the estimate of the costs associated with it. But remember that higher manhour rates for CADD operators must also be included. (vice draftspersons). CADD is not normally called for because of costs associated with it unless the design project is for high rise buildings, or projects where multiple site adaptations are required.
- B. Overhead Costs:** Overhead is negotiable. It varies, not only with the size of the firm, but with the firm's organization and accounting system. Overhead, may legitimately vary with the size and type of project the A-E will design and degree of subcontracting required.
- C. Direct Materials Cost:** You should include all direct material costs, such as mylars and directed design data submittals. They should be itemized by general classification and furnished with unit costs.
- D. Travel and Related Expenses:** (Subject to the Joint Travel Regulation)
- | | |
|--|--|
| <ul style="list-style-type: none"> • Number of trips required. • Per diem. | <ul style="list-style-type: none"> • Number of persons per trip. • Number of days. |
|--|--|
- E. Subcontractor's Costs:** These costs are broken down the same as the A-E's, i.e., manhours, wages and wage rates, and overhead and profit. (DO NOT APPLY THE A-E'S OVERHEAD.)
- | | |
|--|---|
| <ul style="list-style-type: none"> • Surveys. • Specific consultants and estimators. | <ul style="list-style-type: none"> • Soils investigations. |
|--|---|
- F. Profit:** Varies in accordance with risk, either by using the Weighted Guidelines method or a similar structured approach.

Exhibit 4-10

**Note:**

Throughout the text the acronym CAD or CADD is used. CAD is an acronym for “computer assisted design,” and the term CADD refers to “computer aided design drawings.” There are various computer systems on the market for various purposes. However, all of them basically allow the designer to draw a floor plan on the monitor, place and move partitions, doors and windows at will, and reproduce any or all designs on an attached printer. This allows the designer to locate and relocate furniture and other items until a satisfactory design is obtained. The room can be reduced in scale and added to the floor plan. The process can be repeated until the entire floor is completed. There are other features allowing details to be drawn to any scale. When all four elevations have been designed, the building can be totaled and prints made of the appearance at any location.

4.3 Evaluate A-E’s Proposal

A cost and price analysis is the first and most important step in preparing for price negotiations. Without this analysis, the negotiator cannot determine whether the A-E’s proposal includes:

- costs that are fair and reasonable, and a
- correct assessment of the statement of services required.

Analysis of a proposal can be a complex and time consuming task. Therefore, sufficient time must be allowed to accomplish a thorough review. How much is enough? Proposals for large, highly complex projects may require several weeks, or even months, to obtain a thorough analysis, while certain routine projects may require only a matter of hours or days.

Only, when all of the principal evaluation tools are in hand, such as:

- A-E proposal
- Government estimate
- Technical evaluation
- Audit report (if required)

can a complete cost comparison be made. Reviewers search for:

- Nonallowable costs,
- Costs allocated incorrectly,
- Duplication of costs,
- Cost contingencies, etc.

Adequate preparation enables the negotiator to:

- Negotiate from a position of strength,
- Take and hold the initiative throughout the negotiations, and
- Meet contingencies with confidence and integrity.

By obtaining the A-E's proposal well in advance of the scheduled negotiation, the team will have sufficient time to

- analyze its contents,
- compare the Government estimate and the proposal in detail, and
- establish strategies in support of a legitimate and sound prenegotiation position.

By comparing the A-E's proposal with the Government's estimate, differing interpretations may be disclosed which can be corrected before negotiation takes place, thus avoiding unnecessary delays.

There are actually two separate evaluations that must be made:

1. Contractual analysis which is conducted by the contract specialist, or by team members, and
2. Technical analysis which is accomplished by a member of the technical staff, often the project manager.

The technical analysis embraces such elements as:

- Proposed staffing
- Phasing of the design work
- Manhours
- Numbers of drawings proposed
- Reproduction needs
- Numbers and types of consultants
- Effort for producing the specifications

In some agencies the technical analysis is conducted only when there is a wide variance (more than 10%) between the A-E's proposal and the Government estimate. Technical evaluators should always be alert for evidence of misinterpretation of the scope of services, which is usually reflected by extreme variances.

The results of the technical analysis are used as advisory information in establishing negotiation objectives.

In order for a cost to be properly chargeable to a contract, it must be allowable, allocable and reasonable. A cost may be direct (such as direct labor) or indirect (such as general and administrative expenses).

Determining Allowability:

Exhibit 4-11 provides a review of the factors to be considered in determining allowability. FAR cost principles are essentially applicable to A-E contracts.

REVIEW OF COST PRINCIPLES

FAR 31.201-2

Factors to be considered in determining whether a cost is allowable are:

- ⇒ Reasonableness.
- ⇒ Allocability.
- ⇒ Standards promulgated by the CAS Board, if applicable; otherwise, generally accepted accounting principles and practices appropriate to the particular circumstances.
- ⇒ Terms of the contract.
- ⇒ Any other limitations.

Exhibit 4-11

Exhibit 4-12 gives some examples of costs that are generally not allowable. Many of these examples are for indirect costs.

EXAMPLES OF UNALLOWABLE COSTS

	Exceptions
<ul style="list-style-type: none"> ✓ Advertising costs ✓ Bad debts ✓ Contingencies ✓ Contributions ✓ Dividend provisions ✓ Commissions or bonuses in connection with obtaining a Government contract. ✓ Taxes, fees, or charges imposed upon, by reason of or measured by the firm's fee. ✓ Bid and proposal costs. ✓ Any pre-contract costs. ✓ Fines and Penalties ✓ Interest. ✓ Losses on other contracts. ✓ Reorganization costs. 	<p>Unless they are for:</p> <ul style="list-style-type: none"> ⇒ Recruiting ⇒ Procurement of scarce items . ⇒ Disposal of scrap or surplus material <p>Bonding costs (not required on A-E)</p>

Exhibit 4-12

In addition to the examples named in Exhibit 4-12, there are other situations which you should be on the alert for. Some of these are listed in Exhibit 4-13.

MORE EXAMPLES OF UNALLOWABLE COSTS

1. Be alert for compensation to the firm's owners of closely held corporations, partners, sole proprietors, or members of immediate families, and assure that such compensation is reasonable for services rendered, and not a distribution of profits.
2. Cash bonuses and incentive compensation are generally allowable if reasonable and are a condition of employment. Profit sharing plans are not allowable.
3. The cost of options for employees to purchase stock of the company or of an affiliate may be allowable. Consult your agency expert.
4. Deferred compensation is allowable provided the total compensation package of the employee is reasonable and is pursuant to an employment agreement. Pension plans are considered deferred compensation. (See Cost Accounting Standards 412, 413 and 415 for guidance and criteria.)
5. When supervision and/or inspection services during construction are included in the contract, overhead for these items should not be that of the A-E's central office, but should consist of the field location overhead, plus actual central office services directly related to the field services.
6. Interest on borrowings and bond discounts is unallowable. Also, costs of financing and refinancing capital, legal and professional fees for preparation of a prospectus, and costs of preparation and issuance of stock rights are unallowable. You must become familiar with the types of interest normally encountered, i.e.
 - a. Interest paid to a lender for use of funds, which is unallowable.
 - b. Imputed interest (an A-E uses the firm's own funds) which is allowable in some instances.Interest is allowable on certified claims under the Disputes Act of 1978.
7. ADPE leasing costs may be allowable if the A-E can demonstrate that, based on the information contained in their lease/buy decision, that leasing will result in less cost to the Government over the useful life of the equipment, ADPE leasing costs will be allowable. However, there are other stringent limitations. Consult an expert.

Exhibit 4-13

Determining Allocability:

A cost is considered allocable if it is assignable or chargeable to one or more cost objectives on the basis of relative benefits received or other equitable relationship.

A cost is allocable to a Government contract if it:

1. Is incurred specifically for the contract,
2. Benefits both the contract and other work, and can be distributed to them in reasonable proportion to the benefits received, or
3. Is necessary to the overall operation of the business, although a direct relationship to any particular cost objective cannot be shown.

Determining Reasonableness:

A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business.

Reasonableness of specific costs must be examined with particular care in connection with firms or their separate divisions that may not be subject to effective competitive restraints. No presumption of reasonableness shall be attached to the incurrence of costs by an A-E. If an initial review of the facts results in a challenge of a specific cost by the contracting officer or the contracting officer's representative, the burden of proof shall be upon the A-E to establish that such cost is reasonable.

Cost and Pricing Data

The submission and subsequent certification of cost and pricing data as to accuracy, completeness, and currency are also required for A - E contracts or modifications expected to exceed \$100,000.*

Cost and pricing data for A-E contracts consists of all facts which can be verified, existing up to the time of the agreement on price which prudent buyers and sellers would reasonably expect to have a significant effect on price negotiations. Examples include:

- Subcontractor quotations.
- Nonrecurring costs.
- General and administrative expenses.
- Changes in architectural engineering and drafting methods.
- Anticipated business volume increases.
- Any other management decisions affecting costs.

* \$500,000 for Department of Defense, NASA, and Coast Guard

Fee Proposal

The fee proposal is the offer from the A-E to perform the services described in the A-E Statement of Work; it

- contains the same information as the Government estimate,
- is submitted in the same format, and
- includes a breakdown of direct labor hours, labor rates, material costs, subcontracting costs, general and administrative expenses, and profit.

The direct costs are further subdivided by engineering disciplines for both professional and paraprofessional personnel.

By having the proposal and the Government estimate in the same format, you can compare them line item by line item. Following the detailed analysis estimate in Exhibit 4-9, the proposal should include:

- Salary rates.
 - Travel time.
 - Travel expenses.
 - Overhead.
 - Number of submittals.
 - Number of working drawings.
 - Manhours for each discipline.
 - Number of design concept drawings.
 - Number of copies of calculations, specifications, estimates etc.
 - Distribution of work between joint venturers, affiliates and consultants.
-

Consultant Fees

Frequently, you may find that consultant fees represent a significant portion of the total A-E fee. You should insist upon an evaluation of these fees by the A-E firm which supports the consultant's detailed cost estimates and related cost or pricing data. These costs may be subject to cost or pricing certification and/or an audit.

Direct Costs

Costs identified specifically with a particular cost objective.

- Not limited to items which are incorporated in the end product as material or labor.
- Must be described sufficiently to permit evaluation.
- Must include a narrative statement describing the basis for direct costs when they are of an unusual nature.
- Cannot charge to the contract costs identified with other work either directly or indirectly.

Direct Salary costs normally include salaries for regular time and overtime for architects, engineers, estimators, consultants, draftsmen, and others who will actually perform technical services under the

contract.

It is important to remember that a partner's or principal's time is chargeable to direct cost only when they are directly engaged in the architectural, engineering, estimating, scheduling, or other technical service(s) under the contract.

Only the actual time may be charged, and at the going rate which would be paid an outsider for the service.

Other Direct costs include:

- CADD.
- Art work, models.
- Laboratory work.
- Commercial printing, binding.
- Foundation investigation.
- Topographic surveys.
- Transportation, travel, and living expenses must be in accordance with JTR.
- Long distance phone calls, telegraph charges, FAX messages, etc. incurred in the direct performance are direct expenses.
- Reproduction incidental to the design effort. (Quick copy machine costs are usually covered in the overhead pools and should not be duplicated as a direct cost.)

When reviewing the A-E's proposal, you must also be sure that these costs are not duplicated in the indirect costs.

Indirect Costs

Costs which are incurred for common or joint objectives and are not readily subject to treatment as direct costs.

Indirect costs are broken down into overhead on direct labor and general & administrative expenses.

Overhead on Direct Labor should include, but not be limited to, the following in an A-E contract:

- Taxes or payments on direct labor charges required by law under Federal and State Social Security Acts, or by any state or local unemployment compensation law.
- Bona fide pension, retirement, group health, accident and life insurance plans, and incentive payment plans in operation as an established policy of the firm.
- Vacation, holiday and severance pay, and sick leave, or as may be provided for in the contract (such as military leave).

The overhead rate is a matter of negotiation. A cap on the rate should not be established.

General & Administrative overhead costs are those which generally cannot be economically and effectively allocated to the work, although essential to the performance, and should include:

- Taxes.
- Office supplies.
- Utilities.
- Overall supervision of all technical work.
- Insurance on the firm's owned facilities.
- Depreciation of drafting room furniture and equipment.
- Rental of office space.
- Drafting room supplies.
- Local telephone calls.
- All clerical and stenographic work, filing, mailing and accounting related to the type of work.
- Salaries of executives or partners, at rates commensurate with what it would cost to employ another qualified person to do such work for the time devoted to general supervision. Note again that you are to be sure that there is no duplicity of cost when principals are compensated under direct cost.
- Non allocable time of draftsmen, designers, engineers, architects, which under efficient administration would be directly and profitably employed on specific projects.
- Professional Liability Insurance costs are allowed, subject to test for reasonableness and/or allocability. (However, insurance costs obtained specifically for one contract are unallowable. This is often the case in contracts pertaining to environmental work.)

FAR 31.205-19(a)(4)

Because it is a normal expense in operating an A-E firm, professional liability insurance can be an allowable cost for A-E contracts. These policies have significant deductibles such that the costs of correcting “defects in materials or workmanship,” are usually within the deductible amount. Therefore, the insurance is considered to be for “fortuitous or casualty” losses, which is allowable.

Some minor direct cost items may be reported as indirect costs for reasons of practicality.

Analysis and Profit

When all of the principal evaluation tools, such as the architect-engineer proposal, the Government estimate, the technical evaluation and the audit report are in hand, a comparative analysis is made. As a contract specialist, you must be prepared to search for non-allowable costs, cost

duplications, erroneous or faulty cost allocations, inclusion of contingency fees, and other cost discrepancies.

The Government estimate must be revisited by the technical staff to correct omissions and errors found during the analysis, to make justified adjustments, and to accept the proposed A-E firm's salary rates and general and administrative expense if these elements are found to be allowable and reasonable by the audit.

You may use the weighted guidelines method to obtain a profit projection although many agencies have adopted their own structured approach.

6% Fee

Remember, the 6% statutory fee limitation applies only to the design services portion of the A-E's proposal, i.e., those services required in preparing the working drawings and specifications, including the construction cost estimate. You must make sure the A-E proposal has correctly separated these services, and the total does not exceed the 6% design cost amount.

The 6% statutory fee limitation does not apply to the following services:

- Supervision and inspection services.
- Travel and per diem.
- Subsurface explorations and borings; soils.
- Feasibility studies and investigations.
- Flow gaugings, model testing.
- Design development criteria.
- Field and topographic surveys, property, boundary, utility right of way.
- Environmental impact statements and supporting data.
- Model renderings, or photographs of completed designs.
- Reproduction of designs for review purposes.
- Preparation or verification of as-built drawings.
- Services of consultants where not applied to preparation of working drawings.

4.4 Prepare for Negotiations

Negotiation is a flexible procedure that includes receipt of the proposal from the A-E, permits bargaining, and usually affords the A-E an opportunity to revise its offer before award of the contract. Bargaining may apply to:

- Price
- Delivery schedule
- Technical requirements
- Terms of the contract

Negotiation without adequate preparation invites failure and is, in fact, a breach of your obligation to the Government and to the trust the public places in the position you hold. Spending sufficient time and effort on analyzing the proposal, gathering pertinent pricing data, and formulating a definitive and defensible negotiation position will serve you as the negotiator better than any repertoire of bargaining table techniques.

In your agency, you may need to formulate a Prenegotiation Plan and have it approved at higher levels for larger dollar contracts. This plan should address the following items:

- CBD synopsis
- Basis for the selection of the proposed A-E
- Request for Proposal
- Government estimate, dated and signed
- Disclosure statement status
- Cost and pricing data.
- SF 1411, Contract Pricing Sheet, if applicable
- Adequacy of the A-E's accounting system
- Audit report
- Cost and price analysis
- Profit analysis
- Negotiation objectives and strategy

There should be a written narrative concerning each element of cost which explains how the Government negotiation team plans to reach the Government objective. The narrative should explain the strategy to be used in reaching the objective.

Award without Discussions

During your review prior to negotiations, you should have determined if any significant differences between the A-E's cost figures and the Government estimate are evident. If you found that :

- A-E's fee proposal is equal to, or less than, the Government estimate, and is considered fair and reasonable,
- all elements of proposal are in line with the Government estimate,
- there are no unallowable costs identified, and
- the negotiation team is fully satisfied that the A-E has a complete and full understanding of the scope of work,

award may be made without further negotiations.

However, if any element of the fee proposal varies significantly from the Government estimate, even though the total amount may be in accord with that of the Government, or if the difference is over a specific agency established amount, the negotiation team must schedule a meeting for the purpose of negotiating the contract price.

4.5 Negotiate

Negotiation of price and other contract terms is generally conducted by the contracting officer or duly appointed representative. The techniques of successful A-E negotiation are similar to any other negotiations in terms of the “do’s and don’ts”. Exhibit 4-14 lists some basic reminders as negotiation time approaches.

<p>TECHNIQUES OF NEGOTIATION</p> <ol style="list-style-type: none"> 1. Retain control over the proceedings at all times. 2. Effective control of communications is critical in a team approach. A team member should speak only under two conditions: (1) When the chief negotiator signals permission to do so, and (2) When it is their turn to speak per prearrangement. 3. Punctuality. There is no such thing as being politely late for negotiation conferences. 4. Create a cordial atmosphere. 5. Avoid, or at least keep to a minimum, interruptions of the meeting by persons not involved. 6. Use direct, clear, simple language that everyone understands. 7. Retain a calm, patient, and tolerant approach. Emotion blinds reason and begets emotion from the other side. 8. Set the stage before negotiations begin by introducing all parties, 9. Set the ground rules and procedures that will govern the negotiations agreed to. 10. Avoid bottom line negotiations. 11. Avoid haggling and long discussions of single elements. 12. Avoid arguments. Instead of disputing an A-E’s statement, the negotiator can respond by saying: “yes, I see your point, but don’t you believe it is also important to consider. . .” etc. 13. Call recesses at appropriate times and also provide the A-E with privacy. If possible provide access to a telephone. 14. After agreement is reached, make certain that each of the parties understands precisely what constitutes the agreement.

Exhibit 4-14

Negotiations can be conducted either individually by the negotiator, or with the support of a team. A-E negotiations use the team concept which provides the technical expertise of the disciplines to be discussed. The size of the team will, of course, depend upon the nature and importance of the project and its dollar value, size, and overall complexity.

In A-E negotiations, a team appointed by the contracting officer conducts the negotiation of price and other contract terms. The chief negotiator is the contracting officer or designee. For design contracts, members of the team usually come from the Design/Construction and Contracts Divisions, as well as the Project Management Office.

The architect engineer firm is usually represented by one or more principals, assisted by an office manager, consultant(s), and in some cases, counsel. It is essential that the architect-engineer have a representative present with full contracting authority who can bind the firm to the agreement reached during the negotiation.

Discussion Issues

The contracting officer, or a duly appointed spokesperson, must cover the following issues during the course of discussions:

1. Thoroughly review the contract **scope** including options and requirements in a free interchange between the Government and the A-E, directed at resolving all questions.
2. Achieve mutual understanding of the requirements with the A-E. Discuss how many **special presentations** are required, as well as the need for special exhibits and/or special consultants.
3. Identify potentially troublesome **problems early**.
4. Inform the A-E firm that no construction contract may be awarded to the firm that designed the project or its **subsidiaries or affiliates** (except with the approval of the head of the agency).
5. Seek advance agreement on any computer aided charges for **computer-assisted design**. When a firm's proposal does not include appropriate modern and cost effective design methods (e.g. computer assisted design) the contracting officer should discuss the topic with the firm.
6. Because selection of firms is based upon qualifications, the extent of any **subcontracting** required is an important topic. The "Subcontractors and Outside Associates and Consultants" clause limits a firm's subcontracting to firms agreed upon during negotiations.

FAR 36.209

FAR 36.606(d)

FAR 36.606(e)

Also, emphasize the fact that no contractual relationship exists between the Government and subcontractors/consultants.

FAR 36.609-1(b)

7. Discuss any **cost limitation** aspect early in the negotiations. Require the A-E to reaffirm its ability to design the project within the cost limit. Call attention to the contract clause entitled “Design Within Funding Limitations” and discuss such provisions during negotiations. Paragraph C of the clause (see Exhibit 4-6) provides a space for you to insert the dollar amount which is not to be exceeded.
8. Disclose figures in the **Government estimate** to the extent deemed necessary to arrive at a fair and reasonable price. Do not disclose the overall Government estimate. Also remember that if the negotiated amount exceeds the Government estimate, this fact, along with a full explanation, should be included in the Price Negotiation Memorandum (or your agency’s equivalent thereof).

When the overall fee proposal is near in agreement with the Government estimate, the discussion should begin regarding items that are considered out of line. However, if there is a significant difference regarding total price, it is in the best interest of both parties to proceed with an item by item analysis to determine the reasons and basis for the differences.

After the discussion on cost data, an interchange of offers and counter offers with a periodic caucus for private consultation should take place until reaching a mutually agreed total price. After agreement on the basic fee, negotiate the fees for the various options which may be required.

Impasse in Discussions

If you cannot reach a mutually satisfactory agreement, then the contracting officer shall

FAR 36.606(f)

“obtain a written best and final offer from the firm and notify the firm that negotiations have been terminated. The contracting officer shall then initiate negotiations with the next firm on the final selection list. This procedure shall be continued until a mutually satisfactory contract has been negotiated. If negotiations fail with all selected firms, the contracting officer shall refer the matter to the selection authority who, after consulting with the contracting officer as to why a contract cannot be negotiated, may direct the evaluation board to recommend additional firms.”

4.6 Obtain Approvals and Issue Contract

At the conclusion of each negotiation, prepare a Price Negotiation Memorandum (PNM) which summarizes the negotiations and other necessary contract actions prior to contract award. Discuss the following:

- Revised A-E fee proposal.
- Revised Government estimate.
- Revised scope of work.
- Statement on reasonableness of price.
- Variations from Audit recommendations.
- Certification of funds.

The PNM narrative must include enough detail to reflect the significant considerations controlling the establishment of the final price and other contract terms. It must show the updated costs in the Government's objective, including all new facts and interpretations of old facts that persuaded the Government to move from its prenegotiation objectives, if in fact they did, to the agreed price.

The amount of documentation needed depends on the size and complexity of the project. If the contract action is relatively small and is awarded as a result of price analysis alone, the documentation need not be elaborate and as detailed as for an award based on certified cost and price analysis and an audit.

The PNM establishes the basis for the reasonableness of the agreement which you have reached with the A-E and is the permanent record of the decisions made along the way. You may not be around in the future to help reconstruct events, so clear tracks must be provided so that others can follow your rationale. However, excessive detail and individualized jargon and opinions have no place in the document.

Some agencies have a policy whereby a resume of negotiation proceedings, with a particular reference to details of the mutual understanding between the Government and the A-E, is executed and signed by the A-E and the Government negotiators. Under no conditions should the resume of negotiations reflect any of the information contained in the original or revised Government estimate.

Certification of Cost & Pricing Data

Submission and certification as to accuracy, completeness, and currency of cost and pricing data is always required prior to the award of a negotiated contract or modification exceeding \$100,000 (\$500,000 for DOD, NASA, and Coast Guard).

The certification must be made as of the date agreement is reached on price. Adjustments to contract price may be made after award if the data

upon which the Government relied to make a determination of a fair and reasonable price is found to be defective.

Approvals

Prior to awarding a contract you may have to obtain a variety of approvals depending on the nature of the award, such as:

- Agency specific clearances (legal, e.g.)
- Subcontracting plan, if awarded to an A-E who is classified as a large business.
- If an award fee of \$1 million or more is to be made, an EEO Preaward Clearance by the Labor Department is required.

Finally, you must prepare the contract itself using SF 252, Architect-Engineer Contract (see Chapter 4.1). Be sure the contract contains or references all the terms and conditions contained in the RFP and resulting from negotiations as well as all revisions to price and options.

The contracting officer awards an A-E contract by signing and dating block 12 of SF 252 and sending the contract to the A-E firm.

When the award has been made, the contracting officer may release award information and shall synopsize the award in the Commerce Business Daily.

TIME TO ANSWER TIM'S QUESTIONS

At the beginning of the chapter, Tim, the new contract specialist, asked some questions concerning what must be done before awarding an A-E contract. As we have discovered, there are many things that have to be accomplished.

Tim also wondered how many approvals he would have to obtain before he can actually award the contract. Some of these will be agency specific. Others are required by regulation.

If negotiations are not successful, Tim must document the files and enter into negotiations with the next A-E on the list.

CHAPTER 5

CONTRACT ADMINISTRATION

EXPERIENCE IS NOT ALWAYS THE BEST TEACHER

Tim was relieved to know that a design contract for the cafeteria project for NASA had been negotiated and awarded without a hitch. It can now be turned over to another contract specialist to perform the contract administration. Unfortunately, everyone in the office is overloaded with work with the exception of the 'new kid on the block,' Jerry Hensey, thought Tim. I'll schedule him for a training class in that new A-E course being offered next month. Come to think of it, since the only training I have had is in the 'school of hard knocks,' I could use some training in A-E contracts myself.

However, in the meantime, I will have to call him in and offer some advice so that he can get started. Tim reached for the phone and asked if Jerry could meet him in a half hour so that the assignment could be discussed.

Tim greeted Jerry as he walked in the door. "Thanks for coming in, have a seat. I have a new assignment for you, and I would like to discuss how we are going to approach this. A new cafeteria for NASA has just been awarded, and I intend to assign the contract administration duties to you. I realize that this is your first assignment, and I also know that you have had no previous experience in administering this type of contract. Don't worry, we intend to see that you are provided training, and I will help you all I can. Here are the contract documents. The entire preaward file will also be made available to you very shortly. Thank you for coming in, and good luck."

Jerry couldn't believe what was happening. He stared at the file in his hands a minute, and then in disbelief slowly walked out of the office. He had experience in handling other type contracts, but this A-E business is new to him. All sorts of questions started spinning through his mind:

*"What is required in administering an A-E contract?
How does it differ from administering a supply or a construction contract?
How is progress measured?
Is a conference held much the same as in a construction contract?
How are progress payments made?
What about delays, suspensions, mods and terminations?
What about evaluating quality of the work?
How am I to know how to handle this without any training?"*

Jerry has every right to be concerned. There is much that is different in administering an A-E contract.

COURSE LEARNING OBJECTIVES

At the completion of this chapter, you will be able to:

Overall: Administer an A-E contract which meets the ultimate objectives of

- Excellence in design.
- Timely execution.
- Being within targeted costs.

Individual:

5.1 Develop contract administration plan.

5.2 Conduct post award orientation.

5.3 Monitor, inspect, and accept A - E services.

- Achieving quality
- Progress payments

5.4 Select appropriate remedy.

- A-E specific clauses
- Terminations

5.5 Issue delay or suspension.

5.6 Negotiate contract modification.

5.7 Closeout contract.

INTRODUCTION TO CONTRACT ADMINISTRATION

Contract Management Objectives

Good contract management and administration is the key to the success of every design project. It consists of much more than simply performing perfunctory tasks. It involves knowledge and experience, as well as having the right attitude. There are three ultimate objectives to be achieved:

- ① Excellence in design.
- ② Timely execution of the tasks.
- ③ Accomplishment within targeted cost.

Contract Documents

The contract documents which have been issued in awarding the A-E contract are baselined as of the moment the contract is awarded. Neither party can change these documents without a formal modification to the contract. For this reason, both parties and everyone concerned with the administration of the project should have a complete understanding of what the contract contains. Without this understanding you may be subject to constructive changes, and may not recognize and correct an otherwise correctable situation which, without action, will cost the Government money.

Management Procedures

You must be totally familiar with the

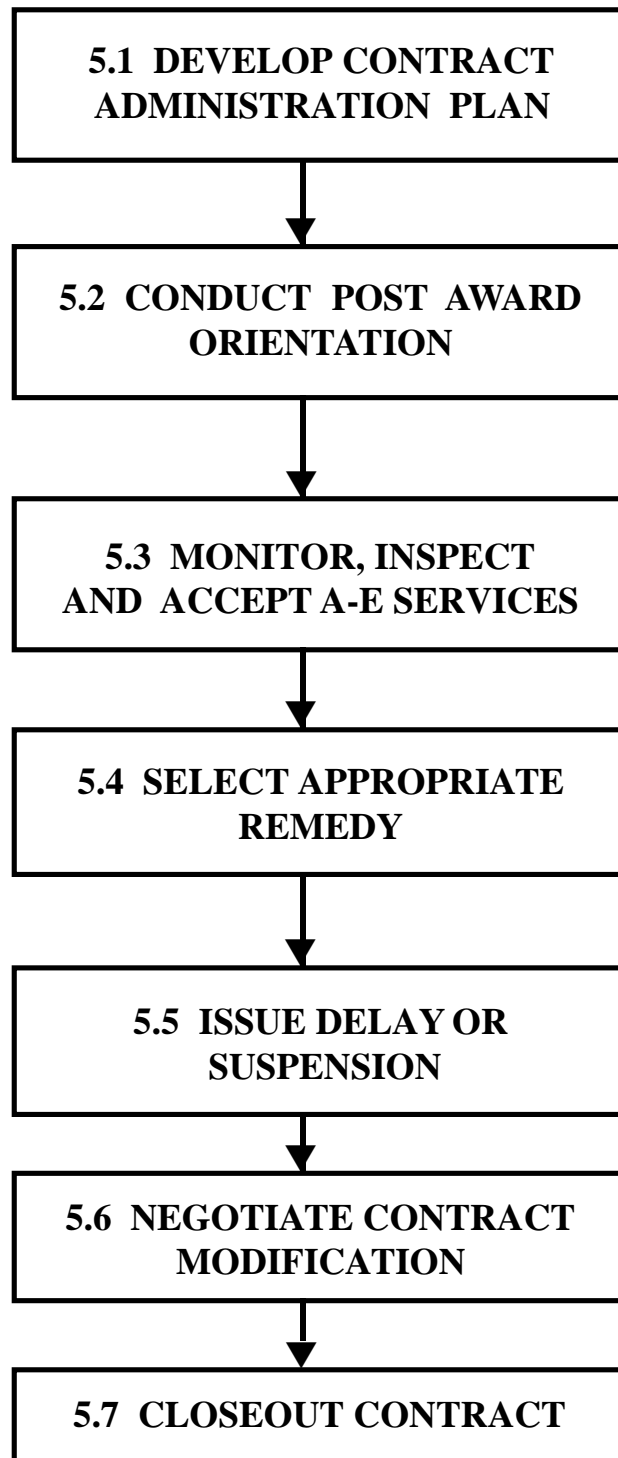
- scope of services required,
- clauses pertaining to the contract,
- possible remedies in resolving problem situations,
- contract modification procedures, and
- closeout procedures for the files.

A-E contract administration differs somewhat from other contracts as progress is based on milestones which, in turn, are based on periodic submissions as the design progresses. These submissions are reviewed and comments and corrections made at various stages. Progress payments are based on the required progress toward these submissions in terms of timeliness, as well as the quality of work submitted.

Steps in Performance

The major aspects of contract administration are charted on the next page. Following the chart, each is discussed in turn.

CONTRACT ADMINISTRATION



CONTRACT ADMINISTRATION

5.1 Develop Contract Administration Plan

The procedures for the awarding of a design contract should guarantee that the A-E will automatically provide a trouble-free design effort and a set of plans and specifications meeting the three objectives described in the introduction.

However, despite the proper application of all these principles, the administration of an A-E contract will neither proceed properly, nor produce the desired quality plans and specifications unless you develop a plan to administer the contract.

The contract administration plan should be a joint effort between all the parties concerned, including among others:

- contract specialist
- project manager
- engineer in charge
- client

The time and level of detail applied to all actions should be tailored to fit the type, method, and complexity of the project, as well as weighing the previous experience the instant A-E has had with your office on previous contracts.

The various types of A-E services (See Chapter 1.2.) have a direct bearing on the contract administration plan to be made, for example:

- Partnering method of contract administration requires a different concept in planning. In this instance, the A-E would become part of the planning team.
- If the contract is to be administered by a Contract Management contractor, the CM is responsible for coordinating plans with the Government and the A-E, as contract administration becomes the CM's responsibility.

Whatever the method, some type of orientation should be held. Adequate, responsible A-E orientation is a basic step toward design contract quality assurance. Orientation should begin immediately upon award of the contract, and should continue during the early stages of design.

There are several ingredients that make up successful A-E contract management and administration. Exhibit 5-1 illustrates some of the most important ones.

INGREDIENTS OF SUCCESSFUL A-E CONTRACT MANAGEMENT AND ADMINISTRATION

- **Management vs. Administration:** Contract project managers are primarily responsible for overall technical management of the contract, i.e., acquisition planning, customer and contractor interface on technical matters, drafting scopes of work, quality assurance, etc. Contract administrators perform contractual functions and provide contractual assistance/information for use during performance.
- **Attitude:** An active rather than a reactive posture is most important for success in A-E contract management. Prevent problems rather than having to remedy them. The contract manager must be relentlessly vigilant to anticipate project requirements and assure that the resources are available in time for the uninterrupted progress of the project. The active position is achieved in the Partnering concept.
- **Organizational Skills:** The effective contract manager organizes the progress of the project as a whole as well as addressing each individual task within the project, such as
 - flow of human and material resources,
 - scheduling & funding (i.e. targets events and targets dates), and
 - procedural & legal requirements.
- **Timeliness of Decisions:** Effective contract managers and administrators demonstrate their ability to foresee and make timely decisions. Very often the single most important cause of project delays or cost overruns is the lack of timely response by the Government to legitimate queries of either the A-E or the construction contractor during the life of the project. Foresight and preparation are essential.
- **Familiarity with Project Data:** Thorough familiarity with the details of the project scope, regulations, and facts covering the project is the basis upon which effective management rests. Achieve familiarity with the A-E Scope of Work (Statement of Services).
- **Communication:** Clear, continuous, and orderly flow of communications between the contract manager and the A-E contractor is vital to the success of the project. Communication should be cordial and tend to enhance the spirit of overall team work. However, the division of roles and responsibilities between the Government segment of the overall team and the A-E contractor must be clear-cut and well understood by all parties.
- **Monitoring Target Dates:** Sometimes it becomes impossible to meet target dates. When this occurs, the manager evaluates the consequences of missing the target, revises targets, and notifies everyone impacted, including management, of all the consequences as early as possible. If the dates involve a contractual requirement, a modification to the contract will be necessary.

Exhibit 5-1

5.2 Conduct Post Award Orientation

After a familiarization with the contract, one of the contract administration planner's first steps is to prepare an agenda for the post award orientation meeting with the A-E. Set a date as soon as possible after award and promptly notify all participants.

The A-E is likely to bring to the orientation any one, or several of its primary players who will be involved in the design of the project. They may be part of the A-E's professional staff, subcontractors*, or consultants. Such representation may consist of:

Civil Engineer: Civil engineers are people who design roadways, bridges, parking lots, etc. They also are responsible for storm water drainage and sewage disposal plants.

Architectural Drafters: Once the designers of the firm have their sketches approved, the work is turned over to the architectural drafter, who takes the sketches and from them produces the working drawings which will be submitted to the Government.

Structural Engineer: Once the drafter's work is underway, the structural engineer starts work. They work out strengths and deflections, foundation sizes, the size of beams, thickness of floor slabs, etc. It is their job to make the building structurally sound against wind, gravity, and other forces.

Mechanical Engineer: When the structural work is underway, the mechanical engineers start work. It is their job to design a heating system, a cooling system, a water supply system, and a sanitary system as required. They must work with the architectural drafter to ensure that the proper room is provided for fans and ducts. They must also give the weights of the equipment to the structural engineers and the power requirements to the electrical engineers.

Electrical Engineer: The electrical engineers must supply drawings showing power lines, motors, transformers, and similar equipment. Electrical engineers transform electrical power into light energy or physical energy in an economical way.

Landscape Architects: The landscape architects locate trees, shrubs, bushes, and flower beds on the property to present an artistic setting. In large areas they may set grades and establish walkways.

* The contracting officer's written consent for the A-E to enter into a particular subcontract is required for A-E services contracts per FAR 44.201-3.

CHAPTER 5

At the meeting it is a good idea to supply the firm with a “**design kit**,” which consists of a gathering of all the appropriate documents necessary to complete the project, i.e.

- Design manuals
- Mylars
- Cost estimate format/data
- A-E guide
- Forms for submitting invoices
- Any other information which will assist.

Minutes of the conference should be distributed to all attendees. Exhibit 5-2 contains some of the agenda items to be discussed.

TOPICS FOR DISCUSSION AT THE POST AWARD ORIENTATION

1. Stress the three objectives of achieving a quality design, within budget, and on time.
2. Discuss scope of services.
3. Discuss the A-E clauses contained in the contract.
4. Inform the A-E as to the persons and authority who will be dealing directly with the firm. Solicit names and authority from the A-E of those who will be interfacing with the Government.
5. Discuss the quality assurance plan, and the A-E's quality compliance plan developed around three phases of control, i.e.
 - Preparatory
 - Initial
 - Follow-up

Remind the A-E that this requirement, if applicable, was included in the synopsis, selection interview, and the fee negotiated. Discuss the procedures for monitoring conformance.
6. Provide the A-E with a briefing of internal procedures for doing business with you.
7. Provide contractor submittal procedures for shop drawings and materials. Make the A-E aware that the handling of submittals is considered by the Government to be as important as the actual construction of the project. (Remember that the process of design submittal is far from being standardized among the agencies. There are submittal requirements ranging from the five percent stage to one hundred percent. Generally, the more submittals that are required, the longer it will take to design a project. This is primarily due to review time needed to process each submittal.)
8. Remind the A-E of other standards which must be complied with, i.e. industry standards, restrictive or proprietary specifications, environmental standards, etc.
9. Brief the A-E on other constraints, if applicable, by providing information concerning them.
10. Brief the A-E on any local, city, county or state regulations or policies that may apply, reminding the A-E that it is their responsibility to know what they are.
11. Site investigations during design may be required and site visits during construction are essential.
12. Give a detailed outline of the Government's procedures for submittal of drawings. Milestones for submittal, format, size and material for drawings, detailing and scale conventions are important. It might be wise to recommend that the scale, orientation, match lines, etc. for drawings throughout all disciplines be set up to accommodate future reviews such as the Interdisciplinary Coordination Review (ICR) and Constructibility Review requirements. Inform the A-E that a submittal log is necessary.
13. Provide information as to the procedures for submitting invoices for progress payments.
14. Brief the A-E and provide forms for any cost estimate submissions for change orders or modifications.
15. Remind the A-E that because selection of a firm is based upon qualifications, the extent of any subcontracting with outside associates and consultants limits them to only those firms agreed upon during negotiations. (FAR 44.204(d)).
16. Discuss metric system requirement, if applicable.
17. If the designer is classified as a large business, provide a briefing concerning adherence to the subcontracting plan.

Exhibit 5-2

5.3 Monitoring, Inspection, and Acceptance

Following the conference it is a good idea to notify the A-E in writing, of the date that its first submission is due. Provide the project manager a copy of all correspondence.

You should also keep in mind that all submittals by the A-E need not be formal. The A-E may request **preliminary review** of a proposal or a subsystem, in order to avoid delays at a later date:

- Avoids the regular crunch at designated review time.
- Provides a means of progress payment measurement verification.
- If the project is critical, spot checking may be advantageous.

Or you may wish to review portions of the design or specifications as they become available by establishing an agreement with the contractor.

You may also want to consider having performed what is called an **“over the shoulder” review** at the A-E’s place of business on critical projects. Visiting the A-E’s place of business for an over-the-shoulder review has the added benefit of acquainting you with the A-E’s personnel, methods, and standards, and providing informal measurements of both progress and quality.

It is also a good idea to contact the A-E periodically by telephone or make an office visit to ensure that the project is on schedule. Emphasize how important it is to abide by the schedule of submissions. Two weeks before the submission is due send another reminder to the A-E. The contractor who is fully aware of the requirements will be better motivated to integrate the submittal process into its quality control procedures and delegate submittal responsibilities to specific individuals on its staff.

Permits

Special care must be taken by the contracting officer to ensure that all applicable permits have been considered by the A-E. Lack of a permit can delay construction for months. The statement of work should include the requirement for preparation of permit requests. These must be executed at the earliest date possible in order to allow sufficient time for review and approval without delaying start of the construction project.

Role of EPA in Designing Projects

In 1969 the National Environmental Policy Act (NEPA) was the first in a series of Federal statutes that reflected the nation’s growing concern over the environment. It directed that Government policies and regulations reflect environmental considerations set forth in the Act, and required preparation of an

Environmental Impact Statement (EIS) for all “major Federal actions significantly affecting the quality of the human environment.”

Since the enactment of that statute and others, the Federal Government and its contractors have increasingly become involved in lawsuits which involve environmental laws. Such **law suits** generally develop in one of three ways from:

1. "Harmful exposure" to a product or service developed or provided under a Government contract.
2. Projects that interfere with individual's property rights or constitute a nuisance.
3. Construction projects which fail to conform with Federal or state environmental law.

Law suits may be initiated by a party who believes that a contemplated major construction project will "significantly affect the quality of the human environment" in one or more ways. In such instances, a law suit might be filed to

- force the preparation of an EIS, in order to
- identify any environmental endangerment, and
- require consideration of alternative work sites or other means to safeguard the environment.

This process can delay work on the construction project if the Government has failed to consider such matters in planning a project, and may result in additional work for the A-E.

Courts can, and have

delayed projects, stopped construction, imposed fines, demolished new construction, ordered restoration, and in rare cases, imprisoned individuals for failure to adhere strictly to regulatory needs.

The most effective means to avoid such interference with the project, is to establish procedures that:

- Identify legal/permit requirements early in the acquisition cycle.
- Conduct periodic reviews with the A-E to assure that the necessary steps have been taken and permits are being obtained in a timely manner.
- If possible, obtain the advice of an attorney.

Exhibit 5-3 provides a brief synopsis of some of the major environmental related laws.

**ENVIRONMENTAL LEGISLATION WHICH AFFECTS
A-E / CONSTRUCTION CONTRACTS**

- 1. National Environmental Policy Act:** NEPA serves as a national charter for protecting the environment. Its goal is to ensure that public officials make decisions based on a sound understanding of environmental consequences and take actions that protect, restore, and enhance the environment. For that reason, it requires all Federal agencies to systematically integrate environmental considerations into their planning and decision making. Each agency is required to write an environmental impact statement (EIS) for proposed legislation or for other “major Federal actions which significantly affect the quality of the human environment.” The EIS for a procurement action is generally created early in the procurement process. It must be coordinated with other Federal and state agencies, and must be made available to the public before decisions are made and actions are taken.
- 2. Clean Air Act:** Designed to afford citizens clean air by regulating (a) stationary sources, (b) mobile sources, and (c) indirect sources. All federal facilities must abide by EPA, State, and Air Quality Control Region requirements regarding the following types of pollutants: particulates, sulfur dioxide, carbon monoxide, nitrogen dioxide, bad ozone and lead.
- 3. Clean Water Act:** The Act forbids the discharge of dredged or fill material and pollutants into the waters of the United States without a permit. Its primary goal is to reduce and control the discharge of pollutants into the nation’s waters.
- 4. Rivers and Harbors Act of 1899:** This Act forbids any excavation or construction in “navigable waters” without the authority of the Secretary of the Army. In 1968, the U.S. Army Corps of Engineers broadened its interpretation of the Act to include consideration of environmental factors. Thus it overlaps the application of the Clean Water Act, which covers a greater geographic area but does not explicitly address excavation or construction.
- 5. Safe Drinking Water Act:** The purposes of this Act were to provide for sanitary drinking-water supplies, to protect sole source aquifers, and to control underground injection of hazardous waste in order to prevent endangerment of subsurface waters. The Act establishes drinking water standards which apply to every public water system in the U. S.
- 6. Federal Insecticide, Fungicide and Rodenticide Act:** This Act provides procedures for the registration, classification, sale, use, researching, monitoring and disposition of pesticides. The Act assigns implementing authority to EPA , and EPA regulations prohibit the purchase, sale, distribution or use of a pesticide unless it is registered. Prior to registration, studies must be conducted to determine whether the pesticide causes unreasonable adverse effects on the environment.
- 7. Toxic Substances Control Act:** The Act regulates the manufacture, use and disposal of substances which pose a potential hazard to public health or the environment. The Act provides an extensive framework for regulating the manufacture and use of chemical substances. Under the Act, EPA has authority to prohibit or limit the manufacture, processing, distribution, or use of chemicals, and to regulate the manner or method of their disposal.

ENVIRONMENTAL LEGISLATION WHICH AFFECTS A-E / CONSTRUCTION CONTRACTS

8. Endangered Species Act: The Endangered Species Act requires all Federal agencies to ensure that any decision or action they propose is not likely to either (a) jeopardize the continued existence of any species listed in the Act, or (b) cause the destruction of, or adversely modify the environment which is necessary for the continued existence of the species. Federal agencies are also required to consult with the Department of the Interior to ensure that federally approved projects do not jeopardize endangered species. It imposes on the Federal Government three duties: (1) to conserve, (2) to inquire, and (3) to consult.

9. Fish and Wildlife Coordination Act of 1973: The Fish and Wildlife Coordination Act requires Federal agencies to consult with the Fish and Wildlife Service before they initiate projects which may divert or control waters. The costs of maintaining wildlife affected by these projects are considered an integral part of the project and are financed from project funds. These costs may include acquiring land and water interests for fish and wildlife.

10. Historical Preservation Act: The Historical Preservation Act requires that before any federal agency initiates action on a project covered by the Act, the agency must consider the effect the project will have on historical properties listed in the *National Register of Historic Places*. The agency must also allow the Advisory Council on Historic Preservation to comment on the project. The Act makes each agency responsible for the location and inventory of historic properties under its jurisdiction. In addition, it authorizes state historic preservation programs: The State Historic Preservation Official serves as the state's liaison with Federal agencies and nominates properties for inclusion in the *National Register of Historic Places*.

11. Resource Conservation and Recovery Act and the Hazardous and Solid Waste Amendments: The Act (RCRA) regulates the generation, transportation, and disposal of hazardous and other solid wastes. Its goals include the following: (1) assisting local Government in regulating solid waste, (2) closing or converting "open dumps," (3) regulating hazardous waste effects on health and the environment, (4) encouraging resource conservation and recovery, and (5) developing alternative energy sources from waste. The Hazardous and Solid Waste Amendments banned land disposal of hazardous wastes and established as a goal, the generation of less hazardous waste.

12. Comprehensive Environment Response, Compensation and Liability Act: The Act (CERCLA) enables the Federal Government to respond immediately to the release (or the threatened release) into the environment of hazardous substances (including radioactivity) which creates a threat of imminent and substantial danger to public health. It authorizes the Government to take action to remove contaminants, clean up a site, or institute measures to mitigate the harmful effects; the Government may also order private parties to take such actions.

CHAPTER 5

Topographic Surveys & Soils Investigations

Any required topographic surveys and soils investigations, if they are not to be accomplished by the A-E, must be requested by the contracting officer as soon as the contract is awarded. Therefore, you must keep close tabs on the progress of topographical surveys and soils investigations, since without this basic information, a design team will come to a virtual halt.

In instances whereby the topographical survey and soils investigations are negotiated as part of the A-E contract, you should request scopes of work from the appropriate Government designers so that they may be forwarded to the A-E in order to facilitate preparation for conducting surveys and investigations.

If the A-E falls behind schedule, you should notify the project manager. Also, notify the A-E of your concerns and discuss means of improving the schedule. If a revision is agreed upon, a contract modification will be necessary.

Inspection and Acceptance

In administering an A-E contract, the procedures for inspection and acceptance are centered around the submittal process. In most cases, the contractor determines what submittal details are needed for contract compliance. Administration of contract submittals is accomplished in two basic steps:

- ① By conducting a detailed review of the technical provisions of the contract to identify specific requirements.
- ② By conducting a detailed review of the special provisions to determine procedural requirements and other administrative matters concerning submittals.

There are several methods available for monitoring, controlling and scheduling submittals for an A-E contract. The same two popular methods used to monitor construction contracts are also considered appropriate for A-E contracts:

Bar Chart is a simple planning technique, sometimes referred to as a “Gantt Chart” that is widely used on construction projects as an economic control tool. It is used for the purpose of measuring, reporting, and reviewing construction progress. It is a graphical presentation of work versus time. It consists of a vertical axis listing major individual activities of a project, and a horizontal axis illustrating time scale. A bar is then drawn representing a period of time for the beginning and ending of an activity.

Network Analysis System is used for construction type projects composed of a network diagram depicting sequence and interdependencies of activities, a mathematical analysis of the network diagram, and an indicator of management controls.

Contracting Officer's
Technical Representative
(COTR)

When contract administration requires assistance from technical personnel, such assistance may be provided by a COTR, who is appointed in writing by the contracting officer. The appointed COTR then becomes the focal point between the A-E contractor and all Government representatives regarding technical and contractor performance issues.

When the surveillance and monitoring burden of the contract is significant, or it is not possible to have a single person who is qualified in all types of work, an additional technical representative may be appointed to assist the COTR.

Technical representatives may perform all of the duties that a COTR performs, except that the assigned COTR remains responsible for the performance of all functions.

The appointed COTR may be designated to nominate principal technical representatives to provide technical oversight on extremely large or complex projects. The contracting officer must regularly monitor COTR performance by reviewing their records.

The COTR should possess sufficient

- technical expertise to act as the single focal point for the Government for the technical issues which may arise under the contract and
- training in A-E contracts and understand their duties, responsibilities and limitations.

The COTR duties are not redelegable, and only one COTR may be appointed under a single contract; however, an “alternate COTR” may be appointed to act in the absence of the COTR. The appointment criteria and procedures for an “alternate COTR” are the same as those for the COTR.

Exhibit 5-4 illustrates some of the duties of the COTR.

COTR RESPONSIBILITIES

1. Coordinate all Government technical interface with the A-E, monitor compliance with contract safety requirements, and take action on technical correspondence, including maintenance of file documentation.
2. Review A-E invoices and supporting documentation to determine the reasonableness of billing.
3. Alert the contracting officer of any potential performance problems and recommend corrective action.
4. Monitor Government furnished property controls.
5. Evaluate A-E's proposals and assist in the development of the Government estimates for change orders.
6. Certify to the contracting officer the inspection and acceptance of the services performed.
7. Prepare evaluation of the A-E's performance in design services.
8. Carefully review performance to assure that the contract does not become a personal services contract.
9. Bring to the attention of the contracting officer any significant deficiencies in the A-E's performance or other actions which might jeopardize contract performance.
10. Any other specific duties so designated by the contracting officer.

Exhibit 5-4

Submittals

The contracting officer's efforts during the submittal stage should be directed toward

- resolving problems which may arise, answering any questions which may surface, coordinating the project, and monitoring the receipt and approval dates regarding the submittals;
- seeing to it that the project is on course, on schedule, within scope and within budget;
- checking to be sure that the material meets the contractual requirements, is complete, and in the correct quantities.

The A-E looks to the statement of services in the contract to determine

- how many copies of the submittals are to be distributed, and to whom.
 - all submittals are to be funneled through one office, or
 - multiple direct distribution to a provided list of names.
- period of time the Government has to review the documents before returning them to the A-E.

It is your duty to see to it that once distribution is made, all reviewers are informed that comments are due by a specific date; telephone if necessary, then follow-up with a second letter when responses are due. Follow up once more if they are still overdue.

It is also wise to review of the submittals yourself. Remember that if you are to be a contributing member of the team, you too have responsibilities in the review process. One does not necessarily need to be an engineer to conduct a review; look at the specification from a contractual standpoint.

Remember, it happens more often than not that the one who ultimately decides the intention of the wording in a specification, is someone other than the original writer, usually a judge or a lawyer with no engineering background or understanding of technical words other than the dictionary definitions.

It is important for the specifier to use the exact meaning of words; otherwise more than one interpretation is possible.

- Unfamiliar words, words having more than one meaning, and unusual technical and trade expressions should be avoided.
- If a word can be interpreted in more than one way, it is necessary by the use of other words, to restrict its meaning or to use a more accurate substitution.
- Exhibit 5-5 provides a list of words frequently used in construction specifications and demonstrates how various choices of words may be interpreted.

WORDS WHICH INVITE AMBIGUITY

All vs. Any

“**All**” is one of the most useful words in a specification, and it should be used liberally. The sentence, “The contractor shall furnish and install **all** of the masonry required to complete the work,” leaves no room for debate on what is to be done, or if it is included in the contract.

“**Any**” implies a limited number to be selected by the reader. It is incorrect to say, “The contractor shall repair **any** defective piping.”

Amount vs. Quantity

“**Amount**” should be used in connection with monetary units; “**Quantity**” refers to the number of objects, volumes, and the like. In an estimate, “**amount**” refers to the cost, and “**quantity**” refers to the number of various units.

And vs. Or

The words “**and**” and “**or**” have entirely different meanings. “**And/or**” is sometimes used in legal documents but is undesirable in specifications because it is an indefinite expression and indicates lack of certainty.

Balance vs. Remainder

“**Balance**” and “**remainder**” are not synonymous, although they are sometimes used interchangeably. “**Balance**” is a device for weighing a mass; “**remainder**” is what is left.

Bidder vs. Contractor or Proposer

One refers to the “**bidder**” as one who has submitted a bid on an Invitation for Bids under sealed bidding procedures. One refers to a “**proposer**” as a person who has submitted a proposal on a negotiated procurement. Once awarded, both persons become the “**contractor**”. We write, “The **bidder** or **proposer** shall mail its bid/proposal to the Government”, and “The **contractor** shall complete all work as shown on the drawings.”

Clean

“**Clean**” is a word often used in specifications. It is such an indefinite term that it can be interpreted in several ways. “**Clean sand**” might mean an absence of fine particles to one person and an absence of organic materials to another. “**Broom clean**” and “**surgically clean**” are terms most often used to define the extent of cleanness required in a construction contract. The only exact method of specifying cleanness is to specify the percentage and types of foreign particles permitted and their size in terms of microns.

Datum vs. Data

“**Datum**” is singular; “**data**” is the plural of “**datum**”. Examples: “The **datum** is correct.”; “The **data** are correct”. However, one would write, “The information shown on this sheet of **data** is correct.”

Either vs. Both

The word “**either**” implies a choice. “Lights shall be placed in **either** room,” does not mean the same as “lights shall be placed in **both** rooms.”

WORDS WHICH INVITE AMBIGUITY

Inflammable vs. Flammable

The meaning of the two words is the same. However, some people think “**inflammable**” is the opposite of “**flammable**.” It would be helpful to avoid use of the word “**inflammable**” entirely. Using the words “**flammable**” and its opposite “**nonflammable**” would result in a clearly worded specification.

Level

The word “**level**” when used as an adjective is inexact. The expressions “**dead level**,” “**completely level**,” “**true level**,” and similar degrees of “**level**” have no meaning. “**Levels**”, like dimensions, must be given a tolerance to have a definite meaning. This can be expressed in inches and feet (10' 1"), or in inches over the whole project.

Remove vs. Replace

These words are often used. They mean that the item is to be removed, and then the same item is to be replaced. If the intent is to replace with new material, the specification must so state.

Resistant vs. Resisting

“**Corrosion-resisting**” is preferred to “**corrosion-resistant**”.

Smooth

“**Smooth**” means freedom from projections and offers a wide range of interpretation. It is a term often used. If “**smoothness**” is important, the degree of smoothness should always be specified. It should not be confused with “warp”.

Straight

“**Straight**,” like the word “**level**,” is inexact. It cannot be quantified. If straightness is important, the limits that the work can vary from a straight line should be specified.

Exhibit 5-5

Drawings

You may hear the terms “plans,” “shop drawings,” “as-built drawings,” and “design drawings” when referring to A-E or construction projects.

Plans - Refers to the drawings associated with the specification.

Shop drawings - Drawings prepared by the construction contractor, the subcontractor, or material supplier to supplement the design drawings made by the architect-engineer. They are submitted to the A-E by the construction contractor and are approved or disapproved, or approved subject to corrections to be made. However, when an A-E approves a “shop drawing”, his approval is limited to the approval of the design and general arrangement only. The A-E is not responsible for detailed dimensions.

Design drawings - Those drawings submitted by the architect during the design phase.

As-built drawings - Final drawings which incorporate all of the changes made during construction.

During the submittal stage you are concerned with design drawings which are submitted for approval. The purpose of approving drawings with corrections noted is to save time. This type of approval is reserved for minor corrections. The prints are stamped by the technical reviewer **“Approved as Noted”**, and the minor corrections are so marked. For other than minor corrections, new drawings must be submitted.

The drawing review that is expected of the contract specialist is different from that of the technical reviewer. Your concerns are focused on contractual matters such as:

- The specifying in the “Notes” section of the drawings an “Or equal item,” foreign manufactured items, or proprietary products; all of which belong in the written specification rather than in the drawings.
- Eliminating “twice told tales,” i.e., it is a poor practice to repeat information in the specifications that is already shown on the drawings. To do so invites errors to be made in one or the other, creating an ambiguity.
- Drawings are for specifying “how many in numbers are required.” The written specification should never specify the number of items required. Errors in numbers can be costly because the specifications govern when discrepancies occur.
- Making sure that drawings have been signed and dated in the right hand corner.

Special Review Boards All appropriate disciplines must review each submittal. Some reviews may take longer than others. In addition to the normal discipline review, there are also special reviews that must be accomplished, either by design personnel, the client, or both.

Architectural Review Board. This may be a special board in your agency that is responsible for reviewing all projects for visual or environmental effects.

Interior Design. This review makes sure the design is in conformance with esthetic preferences. There are two types:

1. Structure - Design, selection and color coordination of:
 - Interior building surfaces.
 - Built-In furniture.
 - Items integral with, or attached to, the structure.
2. Furnishings - Design, selection, arrangement and color coordination of furnishings.

Architectural Barriers. This is a review to assure that the design includes accessibility for physically handicapped persons.

Utilities. The utilities division of the organization or that of the client, reviews the following types of projects:

- Projects involving energy consumption.
- Utility systems projects.
- Projects involving cathodic protection. (Should also be reviewed by maintenance personnel).
- Marine environment projects.
- Projects affecting the environment.

Real Estate. Realty specialists review projects

- involving clearing of timber,
- affecting fish and wildlife or endangered species,
- in, or affecting, wetlands,
- involving agricultural outleasing,
- affecting water rights which involve grassing, landscaping, or erosion control,
- affecting nationally registered trails or sites.

Fire Protection. These reviews are essential because of special requirements that must be approved by specially qualified and knowledgeable persons: i.e., projects involving fire protection systems and life safety considerations.

Industrial Hygienist. A special review is required for all projects which involve toxic materials, non-ionizing radiation, noise or other potential health hazards.

Who within the Government should perform these disciplinary reviews?

It is a common practice in most all agencies to assign review responsibilities to those individuals who drafted the original scope. Where resources allow, the responsibility should also be delegated to one or more individuals with broad experience, not involved in the initial design at hand. Those individuals can be very effective if isolated from their regular duties for a specific period of time to accomplish the review.

Concept Submittal

The A-E must prepare a concept submittal to assure the Government that the firm is proceeding along the lines envisioned. The concept submittal point is generally thought of as being between 12% and 35%, depending on your agency's viewpoint. The **concept submittal consists of:**

- Small scale site plan indicating siting of a building, parking, and utilities.
- Single line floor plans indicating all spaces required by the user plus necessary storage.
- Utility and ingress/egress spaces.
- Unrendered elevations to show scale and mass of the facility, including story heights.
- Elevator/escalator requirements.
- Materials to be used for construction.

1. After all reviews are complete, the documents are returned to the contracting officer. The various comments, questions, and suggestions, on both technical and contractual issues, are discussed with the appropriate parties, consolidated, and issues resolved.

2. The Government must promptly return the submittals. Following design reviews it may be decided that a modification is needed to incorporate changes in the design.

It is important to establish procedures to ensure that any time the contracting officer forwards something to the A-E which might constitute a change in the project requirements, the A-E should be requested to review the material, but warned not to proceed with incorporating changes into the design without first notifying the contracting officer. The contracting officer must then make a determination that the work is required and take the necessary steps to execute a supplemental agreement or change order in the form of a modification to the contract.

3. All deficiencies, ambiguities, conflicts, and inconsistencies identified must be rectified by the A-E prior to the next submittal of the documents. Some comments may require written replies by the A-E.

Design Errors

Design errors are always detrimental. That is why it is imperative that the you discover errors and omissions at the early design stage. Exhibit 5-6 lists possible reasons for deficiencies in specs and drawings.

If discovered during the design phase of a project, they may cause delays due to redesign.

If discovered during the construction phase, errors can cost considerable money and lost time due to rework.

REASONS FOR DEFICIENCIES IN SPECIFICATIONS AND DRAWINGS

- Poor communication among designers, drafters and specification writers.
- Lack of field experience by designers and drafters, resulting in little knowledge of construction methods.
- Superficial (or no) review by a principal (A-E firm) or qualified supervisor (in-house design) of the working drawings.
- Heavy dependence on CAD (computer aided design) and analysis.
- Specification text contains ambiguous or inadequate descriptions of required items.
- Lack of coordination between the drawings and the specifications (demonstrating a need for Interdisciplinary Coordination Review (ICR) of the plans and specifications). In other words, A-E's, while they perform reviews of plans and specifications within each discipline, sometimes fail in coordinating among disciplines.
- Lack of understanding by both designers and specification writers of the properties of construction materials.

Exhibit 5-6

Types of ICRs

Several techniques for identifying errors have been developed, which are referred to as Interdisciplinary Coordination Reviews (ICR):

- Constructibility Reviews
- Redicheck
- Use of CADD technology

ICR is a technique which, although not new in concept, has been gaining in acceptance among the various agencies, as a reliable method to perform quality assurance to detect errors, omissions and conflicts in the plans and specifications. ICR, then, is a logical, systematic comparison of plan sheets and specification sections produced by two or more design disciplines (architectural, structural, electrical, etc.) ICR is **NOT** a:

- traditional “plan check” (It is normally accomplished one discipline at a time by an individual who has expertise in that particular discipline.) or
- “design review”, i.e., the sizes of structural members, adequacy of a foundation, etc.

The main objective of the ICR is to identify and eliminate the inevitable conflicts in a set of plans and specifications that arise because each major sector is designed, drawn, and written by different individuals (prime A-E contractor, any subcontractor, or consultant.)

These errors, if left undetected, inevitably lead to redesign, contract modifications, lost time during construction, and claims of A-E liability.

ICR is conducted only on the final plans and specifications. If used, the requirement that ICR is to be incorporated in the statement of work, must be included in the synopsis. It must also be addressed as a selection evaluation factor in the synopsis.

Constructibility review procedure was developed over the years to help insure quality in design.

It is a review which should be performed by an independent A-E contractor or Government official who has been out of the chain of developing the original design specification and other reviews which have been accomplished.

The individual assigned to accomplish a constructibility review should be familiar with the peculiarities of the project site, such as drainage patterns, underground utilities, disposal sites, soil types and any other problems which may have been experienced in previous construction contracts in the area.

To be “constructible,” a project design must be not only technically correct, but must also be practical. A constructibility review is conducted under the precept that any construction contractor with normal capabilities must be able to construct the facility

- as designed
- on the site provided
- in the time allowed.

ELEMENTS CONSIDERED DURING A CONSTRUCTIBILITY REVIEW

- Clarity of contract documents.
- Completeness of the plans and specifications
- Availability of:
 - Labor force with the necessary skills.
 - Required construction equipment and materials.
 - Special installed equipment, systems, and building materials.
 - Adequate work space, storage areas, and office space.
- Construction time: Is it appropriate for the size and complexity of the project?
- Potential conflicts with Government operations, other contractors?
 - Demolition of existing buildings.
- Compliance with applicable laws, regulations, ordinances (environmental, etc.)
- Site conditions:
 - Are they clearly shown?
 - Have they been verified?
 - Is the facility properly adapted to the site?
- Site Access: Is it constrained by security, remoteness, working hours, other limitations?
- Coordination between disciplines in the plans and specs.
- Each design submittal must be accompanied by a Current working estimate to assure that the design is progressing within the ECC.

Exhibit 5-7

In order to perform this type of review, the contract documents must be

- inherently understandable,
- biddable,
- enforceable, and
- susceptible to normal contract administration procedures.

Exhibit 5-7 lists examples of subjects included in a constructibility review.

Redicheck, a lesser known system for interdisciplinary coordination provides a “how to” approach to the process of reviewing drawings. The Redicheck method has identified a list of the most common sources of errors made in design, all of which can be identified by a drawing overlay method of detection. (See Appendix A for detailed review plan list.)

To perform a review by the Redicheck method:

1. Separate plans into disciplines.
2. Using a light source (lighted table, window, etc.), place the plan sheet for one discipline over that of another discipline for any given segment of a structure. **For example**, the architectural reflected ceiling plan may be overlaid by the electrical, then the HVAC, then the fire protection plan in turn.
3. Quickly examine to reveal any conflicts.
4. Check against each discipline in turn to avoid conflicts with ducts, conduits, lighting fixtures, etc.

The overlay technique yields the maximum return on time invested.

Clearly, the job will be easier if all plan sheets to be compared are drawn to the same scales. Use of vellum or other translucent drafting media will also expedite the process. These and other requirements must be spelled out in the statement of work at the time of negotiation.

CADD has enhanced the A-E's ability to reduce coordination error in plans. Well designed computer applications insure that:

- Common scales, orientations, building lines, etc., are used for all disciplines;
- Standardization of symbols, notation, weights of lines, and numerous other features are simplified;
- Coordination errors in plans are highlighted by assigning a color to each discipline and comparing them on the monitor or projecting them onto a screen; and
- Corrections are made on the spot.

Upon completing the design of a project, the A-E will submit a final design package which, in most instances, will include the items shown in Exhibit 5-8.

FINAL DESIGN PHASE SUBMISSION

- Reproducible contract drawings, complete and certified by the designer to be ready for advertising the construction project.
- Specification.
- Design analyses which are complete and provide the reviewer with all needed information to back up the plans and specifications.
- Marked up guide specifications annotated in accordance with design instructions.
- Special Provisions instruction for the specification as to completion time for the project, any applicable phasing, Government-furnished equipment, and other pertinent information.
- Final cost estimates.
- Sample bidding schedule. Additive or deductive items must be shown, if applicable.
- Phases must be clearly described, if applicable.
- Verification that Interdisciplinary Coordination Review (ICR) has been performed.

Exhibit 5-8

A-E Presentation

It is customary in some agencies to require the A-E to stage a “designer to client” presentation at the conclusion of the final design. Effective contract administration requires specific in-depth knowledge of a project’s plans and specifications prior to contract award.

The presentation should highlight areas requiring special attention during construction. This presentation is advantageous because it provides an opportunity for all parties in the acquisition process to be briefed on the project, including

- procurement personnel responsible for issuing the construction contract,
- construction technical personnel who will be responsible for monitoring the acquisition,
- client, and all other interested parties.

The typical subject matter included in this presentation are described in Exhibit 5-9.

TYPICAL AGENDA FOR A DESIGNER TO CLIENT PRESENTATION

1. Outline of the project scope of work.
2. The structural concept, materials, or unusual construction features explained:
 - Critical structural elements outlined.
 - Tolerances.
 - Special anchors.
 - Pile foundations.
 - Testing requirements, etc.
3. Specified testing requirements.
4. Brief description of mechanical, electrical, utility designs, and unusual features such as high pressures, temperatures, capacities, etc.
5. Critical areas where 100 percent inspection is required or recommended.
6. Critical submittal and shop drawing requirements.
7. Requirements for supervision of installation by a manufacturer.
8. Requirements for operating and maintenance manuals.
9. Identifying long lead time items and Government furnished equipment.
10. Customer operational requirements, i.e.
 - Utility outage periods.
 - Phasing of work.
11. Permit requirements.
12. Hazardous materials and safety precautions.
13. General Requirements:
 - Project constraints.
 - Description of demolition requirements.
 - Early submittals for the long-lead time items.
 - Project phasing, coordination, scheduling.
 - Storage of materials on site.
 - Special qualifications of workers.
 - Proprietary requirements, if any (include justification).
 - Quality control.
 - Environmental impacts.
 - Testing.
 - Borrow and disposal sites.
 - Traffic constraints, traffic management plan.
 - Interfaces with other projects, systems, etc.
 - Operation & maintenance manual requirements.
 - CADD.
 - Requirement for metric design.
14. General briefing on each of the 16 construction divisions.

Exhibit 5-9

Progress Payments

FAR 52.232-10

Payments under an A-E contract are based on partial performance of the work, i.e., on a percentage or stage of completion accomplished and are made on a monthly basis. Ultimately the Government allowed amounts depend upon the

1. monthly progress report that is normally required to be submitted with the voucher for payment, and/or the
2. occurrence of a specific performance milestone during the payment period which allows for the viewing of progress first hand.

Depending on how the contract is written, the invoice may consist only of one line with a lump sum price, or it may be broken down, such as:

- Special studies - Amounts billed for site investigation
- Actual design work - Travel and other support costs

FAR 32.905(b)

The Prompt Payment Act also applies and the **Prompt Payment for Fixed-Price Architect-Engineer Contracts** clause specifies required information that is to be reflected on a request for partial payment. An interest penalty will be paid automatically by the designated payment office if payment is not made by the 30th day after the designated billing office has received a proper invoice from the A-E providing:

- Paying office has received a proper invoice.
- Receiving report has been processed.
- There are no disagreements over quantity, quality, etc.

If satisfactory progress is not being achieved, or the quality of the work submitted is not satisfactory, the Government may withhold up to 10% of the amount due the contractor until such time that the contracting officer determines that the work is satisfactory. Since the A-E contract completion dates are in the form of submittal dates, measurements of progress are usually easily determined. You may choose to conduct over the shoulder reviews at the A-E's offices to obtain progress information in the interim.

If the invoice is for final payment, the invoice must be clearly identified that it is for final payment.

5.4 Remedies

When discussing remedial action in Government contracts, the single most effective remedy for correction is always the prevention of defective performance in an A-E contract accomplished by following the practices illustrated earlier in Exhibit 5-1, “Effective Management/Administration of A-E Contracts.”

“Responsibility of the A-E Contractor”

The A-E has the responsibility and obligation (See Exhibit 4-2.) to fulfill the terms and conditions of the A-E contract which includes providing a usable set of plans and specifications to fulfill the purpose of the A-E contract as set forth in the scope. You must be able to

- recognize a defective plan or specification caused by a design error;
- understand the responsibilities of getting the A-E to correct the deficiency in the plans and specifications, and reimburse, if necessary, the Government for the damages caused;
- document the administration of the contract by processing appropriate A-E liability forms.

Normally design deficiencies are discovered during construction when the construction contractor or the Government recognizes that the facility will not be usable if built according to the plans and specifications. If this occurs, it normally results in a change order to the construction contract and may, or may not, affect the contract price or time of performance.

If the design defect is latent, the matter may not be discovered until after completion of the construction contract when the use of the product is attempted and found to be defective.

The architect or engineer holds a position of eminence as the master builder and is considered by some to have an all-embracing skill in design and to prepare flawless contract documents. However, well built structures are the product of architects or engineers working in harmony with the Government, the construction contractor (including subcontractors), and others in order to achieve the ultimate objectives.

Sometimes, the construction contractor or its subcontractors disregard or modify the specification, either with or without the Government's knowledge. Such situations are often difficult to unravel when determining A-E liability, due to the “not me” posture assumed by all parties,

including the material suppliers.

The “**not me**” syndrome is described as a situation wherein trouble develops, and the Government blames the architect or engineer regardless of the circumstances. The architect or engineer, in turn, blames the construction contractor, who blames the subcontractor. The subcontractor can only blame the material, and the material supplier will blame the applicator.

Someone else is always at fault. The reason for this tendency is obvious.

Decisions of the courts, both in the private sector and the Government, hold that an A-E is not an insurer that the plans and specifications it produces are 100% perfect. These decisions reflect the fact that even a skilled professional is still fallible.

Infallibility

The infallibility concept had its beginning in 1984 when the Assistant Secretary of Defense issued its policy on the responsibility of the A-E for construction changes due to design errors; the program was called “Design Errors and Architect-Engineer Liability.” As the program began implementation throughout the Government, it became known as “A-E responsibility management.”

Exhibit 5-10 lists criteria to be applied in determining whether an architect’s responsibilities have been met.

CIRCUMSTANCES MEASURING WHETHER A-E RESPONSIBILITIES HAVE NOT BEEN MET

- Faulty construction design.
- Failure to make an independent effort to ascertain the suitability of construction materials for the purpose for which it was used.
- Failure to keep abreast of latest technical developments in construction and to design appropriately.
- Preparation of plans which, if followed, could cause injury to another’s property, or to persons.
- Furnishing specifications and drawings so incomplete and indefinite that they would not be suitable for use as the basis of a construction contract.

Exhibit 5-10

FAR 36.608

If the A-E does not live up to its responsibilities, steps may be taken to pursue liability. A simplified description of the steps forming contract liability action is demonstrated in Exhibit 5-11.

STEPS IN PURSUING A-E CONTRACT LIABILITY

1. Design deficiency discovered by the Government.
2. A-E is notified. (Get the A-E involved early in settling or resolving deficiency). It may ultimately reduce recovery costs if the A-E can show that, if consulted, he/she would have proposed a more economical approach to fixing the problem.
3. Redesign Effort.
 - By the A-E.
 - By the Government.
 - By a new A-E firm.
4. New design implemented into construction contract.
5. Investigation initiated into responsibility and liability for the deficiency.
6. Case is reviewed by agency board. Recommendation is made to the Contracting Officer that A-E liability be pursued/not be pursued.
7. Contracting Officer makes a decision as to pursuing liability.
 - If decision is to pursue, issues demand letter for damages to the A-E.
8. If A-E responds, negotiations are held.
 - If negotiations are successful, the A-E pays and the case is closed.
 - If negotiations are unsuccessful, the procedure must follow claim resolution.

Exhibit 5-11

If it falls within your duty to become involved in pursuing A-E contract liability, do not allow anyone to instruct the A-E as to how to correct a specific design defect. By doing so, the Government could be assuming some responsibility for the design.

[Also do not process the payment for the final plans and specifications until adequate quality control has been demonstrated by the A-E.]

An A-E may incur liability to the Government from either

negligent failure to meet the standard of care reasonably associated with the A-E profession, or

breach of a contractual duty to exercise skill and care in performing services.

In order to find that liability exists, you must carefully examine the facts and affirmatively answer four questions:

- ① Is the construction change attributable to a design error or an omission?
- ② Does the design deficiency stem from an error or omission by the architect-engineer?
- ③ Does the error or omission by the A-E result from the architect-engineer's negligent failure to meet the standard of care reasonably associated with the A-E profession or from a breach of contractual duty?
- ④ Has the Government suffered damages as a result of the design error or omission?

Doctrine of Comparative Negligence

In addition to this "burden of proof," the doctrine of comparative negligence provides that the Government is **not barred** from any recovery of damages by contributing to the negligence. Instead, there may be an apportionment of damages or responsibility in proportion to the relative fault of both parties.

The Government always has the responsibility for minimizing damages resulting from an A-E's deficiencies. This makes it particularly important that the contracting officer notify the A-E promptly in instances where construction costs of a change will include items that can be interpreted as damages. This will allow the A-E to minimize damages by participating in any corrective actions to be undertaken.

Two examples of circumstances in pursuit of liability which will relieve the A-E of responsibility in design deficiencies are described in Exhibit 5-12.

**CIRCUMSTANCES WHICH MAY RELIEVE THE A-E
OF RESPONSIBILITY IN DESIGN DEFICIENCIES**

- Correction of a design deficiency by the Government or the construction contractor and the correction is later determined to be a failure.
- Failure attributable to a construction detail that was not included in the original design, and the A-E was not contacted or requested to furnish a design during construction.

Exhibit 5-12

In all cases files must be carefully documented as appropriate. The decision to seek recovery for damages for each design deficiency, when it occurs in a project, often times depends upon whether the design deficiency is considered

- breach of contract duty, or
- negligent failure to meet the ordinary standard of care.

There is no clear cut “yes” or “no” answer in the determination of whether and when to pursue A-E liability. It requires making a decision in a gray area that is less than perfect, but manageable. Every action should be taken to assure that A-Es are treated fairly and are allowed the opportunity to fully participate in the resolution of A-E liability cases.

"Design Within Funding Limitations"

The architect owes the Government the duty of planning a project that can be built within a cost which is reasonably near the limitation on construction costs. (See Exhibit 4-6.) The A-E must promptly advise the contracting officer if it finds that the project being designed will exceed, or is likely to exceed, the funding limitations, and it is unable to design a usable facility within these limitations. The Government may, if it determines that the ECC is too low, authorize a change in scope or materials to be used in order to reduce the costs down below the ECC.

1. Redesign responsibility does not arise when excessive bids are beyond the control of the A-E. Typically these “beyond control” conditions arise when the bids for the construction project is delayed for an extended period of time, subjecting components of design (i.e. steel or concrete) to excessive inflationary costs.
2. Also, in applying the general rule of construction limitations, the courts have **not applied** the doctrine of “substantial performance” as they have done in construction contracts. This doctrine involves deducting from the contract price the cost of having the remaining work performed either by the Government or another contractor. Instead, the courts have adopted the strict view that where an architect furnishes plans which result in a construction contract in excess of the cost limitation, the Government has not received what it bargained for. Therefore, the A-E must redesign at its own cost to stay within the limitation.
3. Current working estimates (CWE) are required at each design submittal, but should also be developed with enough regularity to assure that the design in process can be constructed within funds that are programmed.

The CWE consists of the current construction cost (CCC) escalation on the CCC taken from the time the CWE was being prepared, to the estimated midpoint of construction, including contingencies, to cover possible changes during construction, and supervision and administration of the project costs.

During the design of the project the Project Manager should be carefully monitoring the CWE. Most agencies have established procedures for controlling design costs. For example, if CWE's, during the design phase indicate that the program amount will be more than 10% of the CCC, the scope should be reduced more than 10% to stay within the program amount.

Close coordination between the contracting officer and the A-E is essential in order to prevent an underfunding situation at the end of the design. When cost cutting measures are necessary, solutions are the responsibility of the A-E.

"Termination (Fixed Price A-E)"

Unlike the construction termination clause, the A-E (See Exhibit 4-3) clause is two-part, covering the termination for convenience and default within the same clause, but in separate paragraphs.

1. **Termination for Convenience.** This portion of the clause is invoked when the Government no longer needs the contracted services. Once invoked, the Government is responsible to make an equitable adjustment in the fee, but such adjustment does NOT include an allowance for anticipated profit on the services which have not been performed at the time of termination. The adjustment would include the costs incurred by the contractor, costs of complying with the termination and a reasonable profit (no more than 6%) on the costs incurred.

2. **Termination for Default.** This portion of the clause is seldom used in A-E contracts. However, if terminated for default, the Government takes over the work and carries it through to completion by contract or otherwise. You can then hold the A-E liable for any completion costs. The A-E may appeal any termination for default actions in accordance with the Disputes Clause of the contract, and if found improper, the termination for default will be converted to a termination for convenience and the A-E will be able to recover an equitable adjustment.

5.5 Delays and Suspensions

Typically, an A-E may be hesitant to file a claim for any reason because of the perceived notion that a conflict ending up in formal dispute procedures may result in failure to receive future awards under the Brooks Act. Therefore, in most cases the A-E prefers to “work out” differences through negotiation, and/or if necessary “eat” such losses.

Although rare, delays associated with A-E contracts leading to disputes, are usually centered around those occurring during the submittal process. However, there are other delay situations that may occur which could give rise to a delay claim:

- Delay by the Government in furnishing needed data required for the design.
- Availability of the site when a site visit is needed for information relating to the design.
- Delays in issuing a Notice to Proceed.
- Delays in supplying funds in an incrementally funded contract.
- Delays in issuing change orders.
- Construction suspension.
- Delays in approval of VECPs.

In most instances, potential claims are avoided by negotiation settlement at the time that disagreements surface or during the dispute stage.

FAR 52.212-12

The "Suspension of Work" clause* provides the basis of settlement of claims that arise from delays and interruptions in work being performed, caused by the contracting officer's acts or failures to act.

An ordered suspension of work rarely occurs in A-E contracts. When a suspension does occur it is usually attributed to:

- Advancement of the state-of-the-art.
- Engineering breakthroughs.
- Realignment of an agency program.

Constructive suspensions of work can occur in an A-E contract when the firm is required to cease efforts, but have not received a formal order to do so from the Contracting Officer.

FAR 12.502

The A-E's ability to recover costs under suspension of work actions, whether ordered or constructive, depends to a great degree, on whether it can establish that the

- Fault is the Government's,
- Action or inaction is unreasonable, and
- Costs related to the suspension are substantiated.

* See Exhibit 4-4 for text of clause.

What the courts have used as a measuring stick in deciding reasonableness of delays in an A-E situation is to ask the question:

What is considered a reasonable time for the Government to perform a specified act?

In instances where A-E firms have been able to divert their design efforts to other aspects of the project, the courts have ruled that no unreasonable period of time has occurred. Also, when A-E firms have experienced a lengthy delay, but shifts the firm's efforts to other projects, the courts have found the delay reasonable.

Therefore, much depends on the court's review of surrounding circumstances, including the

- A-E's allocation of risk,
- Firm's particular needs at the time,
- Convenience to the Government, and
- Foreseeable consequences of the Government's action or inaction.

The A-E always bears the burden of proof on the unreasonableness of Government delays.

5.6 Contract Modifications

Every A-E contract presupposes the possibility of differences arising between the Government and the A-E, causing modifications to the contract to be issued. In design contracts, a contract modification is an action which may

- cause a shift in the future design effort, or
- alter the end product of the design.

It generally increases or decreases design cost, time, or both. Some modifications may not alter the contract price if ① design effort has not been expended and ② the effort required by the change is similar to that in the existing contract.

During the life of the contract, changes in the requirements for services to be accomplished will generally occur. The cause of design contract modifications are numerous. Exhibit 5-13 explores some of the reasons.

The effect of a Government directed change to the design contract may result in an **increase** or **decrease** in the design effort. It may also affect other design phases. For instance, an earlier completed design phase may have to be redesigned and future design phases extended, thus causing slippage to design schedules which amount to additional cost to the Government.

SITUATIONS TRIGGERING DESIGN MODIFICATIONS

⇒ **Request from the client.**

Projects negotiated do not always include the client's "wish" list due to budget constraints, or failure to obtain all desired features in the original scope.

⇒ **Design changes due to change in the Government requirement.**

A way is found to accomplish the project objectives by a more economical means than the present project design incorporates.

⇒ **Submittal comments.**

Design review comments are likely the second highest contributor of constructive changes in the A-E contract process. No two designers are likely to make identical choices when it comes to a particular design element. Because of this "designer's choice" aspect of A-E contracts, it is incumbent upon the Government to recognize these aspects and refrain from making design comments that change a designer's choice decision.

⇒ **An A-E inquiry.**

A question concerning the design criteria which needs clarification often results in discovery of a defect in the design.

⇒ **Technical directions issued by a Government employee leading to a constructive change order.**

⇒ **Design slippages.**

Design slippages can occur when the Government promises to have design review comments returned to the A-E within a specified period of time and doesn't.

⇒ **Value engineering.**

⇒ **Administrative changes.**

⇒ **Time extensions.**

⇒ **Government furnished property.**

⇒ **Options.**

Options are priced at the time of award, requiring a D&F for execution, and a unilateral contractor notification procedure. The unilateral notification procedure consists of both the notice of intent to exercise the option and the unilateral exercise of the option by contract modification. In A-E contracts the option must have been included in the synopsis.

⇒ **Suspension of Work.**

Exhibit 5-13

In all change order situations, the A-E must continue performance of the contract as changed, except when performing in cost-reimbursement or incrementally funded contracts which have funds limitation clauses.

Failure to agree to any adjustment in price shall be considered a dispute under the Disputes Clause. However, nothing in this clause shall excuse the A-E from proceeding with the contract as changed. The Disputes clause specifies that the A-E shall proceed diligently with performance of its contract, pending final resolution of any request for relief, claim, appeal, or action arising out of the contract.

Types of modifications are illustrated in Exhibit 5-14.

TYPES OF MODIFICATIONS

BILATERAL

A bilateral modification (supplemental agreement) is a contract modification that is signed by the A-E and the contracting officer. Bilateral modifications are used to:

- Make negotiated equitable adjustments resulting from the issuance of a change order to the A-E contract.
- Definitize letter contracts which have been issued in emergency situations.
- Reflect other agreements of the parties modifying the terms of the contract.
- Make other adjustments.

UNILATERAL

- Make administrative changes.
- Issue change orders.
- Make changes authorized by clauses other than a changes clause. (i.e. Government Property, Options, Suspension of Work).

Exhibit 5-14

There are certain actions which must take place before a contract modification is issued. The contracting officer must assure that all of the pieces are present and accounted for:

- Authority has been obtained.
- Government estimate has been received.
- Funds are made available.
- Letter from higher authority requesting the change (if required) is in the file.

- Value engineering proposal determination on VECs has been executed (if applicable).
- Impact on the design effort has been assessed.
- Change has been determined to be either outside or within scope.
- D&F executed (if required).
- Cost and price analysis has been accomplished.
- Business Clearance (Pre- and Post) or Negotiation Memorandum has been executed.
- Cost and Price Certification from the contractor obtained (if required).
- Up to date statement on CWE and the current 6% statutory limitation figures including any adjustment has been documented.
- Audit received prior to negotiations (if required).

Change Order

When a change order is imminent, you must request a proposal from the A-E. The pricing of a change follows the same laws, regulations, and cost principles as for the initial contract including the requirement for

- Government estimate,
- Certified cost or pricing data, if applicable, and
- Audit, if adequate preaward audit not available or has been waived.

In processing a change order, you must have close control in order to be assured that the adjusted total of design fees for the production of design, plans, drawings or specification does not exceed the 6% statutory limit.

Exhibit 5-15 provides a sample formate for calculating the 6% statutory fee limitation which applies to

all new contracts and modifications, or

each individual delivery order which is written against an Indefinite Quantity Contract.

Under no circumstances can this fee be exceeded throughout the life of the contract, including all modifications or even as a result of any individual delivery order written against an indefinite quantity contract. The limitation should be discussed during negotiations and must be addressed in the price negotiation memorandum.

Lost design effort is any design work which has been accomplished but which must be scrapped and redone after award of A-E contract but prior to award of the construction contract or modification thereto because of

- revisions made in the scope of a project,
- change orders, or
- any other reason which invalidates completed portions of design.

COMPUTATION OF DESIGN FEE PERCENTAGE

A. For initial award:

$$\text{Design \%} = F (\text{Design Fee}^* / \text{Estimated Construction Cost}) \text{ times } 100$$

B. For modifications:

	<u>Estimated Construction Cost</u>	<u>Design Fee</u>	<u>Percent</u>
Basic contract plus previous changes	\$ _____ ①	\$ _____ ②	_____ ③
This change	\$ _____	\$ _____	
Subtotal	\$ _____	\$ _____	
Less lost design effort		\$ _____ ④	
Less breakage	\$ _____	\$ _____ ④	
TOTAL	\$ _____	\$ _____	_____ ⑤

① Total of estimated construction costs for basic contract and previous changes, made at the time of negotiation of the basic contract or change. Do not revise even though later revised estimates or even construction award costs are available.

② Total of previously awarded design fees. Obtain from the contract file considering all changes to date.

③ Cannot exceed six percent.

④ Lost design effort or design breakage must be fully explained in the contract file. Do not use these lines if there are no lost design and no design breakage.

⑤ Cannot exceed six percent.

* Design fee is only those costs which go directly for the production of designs, drawings, plans and specifications, including construction cost estimate.

Exhibit 5-15

Design changes which do not result in increased design costs are not considered lost design. For purposes of computing the 6%, it is important that you provide close supervision to ensure that the cost of lost design is determined and documented, so that the net cost of planning and design which is related to construction costs can be determined.

Lost design is calculated separately from design breakage unless the design of a project is terminated before completion, or the construction of a project is cancelled. If this happens, all costs, including lost design, are transferred to design breakage. (Check your agency policy for exact procedures.)

Design breakage is the cost of designs or portions of designs, studies, or other projects ① started and cancelled prior to completion, for whatever reason or ② completed, but not expected to be advertised for construction.

The cost of a design, or a portion of a design, which has been completed and shelved temporarily because of deferral of the construction project is not considered breakage, but becomes breakage when and if the project is definitely cancelled rather than merely being deferred.

Claims

A-E's have not traditionally been known to file numerous claims because of:

- Fear of developing an adversarial relationship which might prohibit them from obtaining future awards,
- Strong traditional attitudes concerning professionalism, and
- Lack of expertise in costs and accounting procedures.

In A-E contracts, relief, when it is sought, is accomplished under the same Disputes clause as governs other types of Government contracting.

Even though historically, A-E contracts have not been the subject of a large number of disputes or claims, in recent years a trend is appearing toward claims from A-Es for out of scope directed items. The great majority of these disputes, or "claims" are resolved by negotiation and the issuance of a change order:

1. A-E is first asked to state in writing the facts of the claim or dispute and its position.
2. After receipt by the Government, additional information and facts are gathered from all knowledgeable personnel and an attorney's advice is usually obtained.
3. From the information gathered, along with the contracting officer's knowledge and findings, the Contracting Officer makes the final determination.

As in any other type of contract claim, when the Government does not find validity in a claim, the contracting officer's decision is final unless the A-E appeals or files a suit as provided by the Contract Disputes Act.

The contracting officer's final decision is the very foundation of the dispute and appeal process.

- It directs the way the contract will proceed in the interim.
- It is also the basis of the Government's position on appeal.

Exhibit 5-16 illustrates the disputes process leading to appeals.

In the meantime, the A-E must continue performance while an appeal is pending. Therefore, the contracting officer must render the decision promptly. Otherwise, the delay itself may become an issue in the dispute.

Administrative Record It is important for contracting officers to maintain relevant, adequate and complete records for the file in all contractual matters.

In theory, the courts refrain from considering the appropriateness of a decision and rule only on the adequacy of the information contained in the administrative record. In other words, what kinds of information did the contracting officer rely on when making the final decision?

A court may find that the record relied upon by the decision maker was seriously flawed. In that case, the decision would be declared void as being arbitrary and capricious. An appropriate injunction or other remedy would be ordered by the court.

An administrative record is a compilation of the documentation assembled during decision making. It includes:

- Reports
- Notes
- Margin comments
- Letters
- Transcripts
- Official notices
- Phone logs
- Maps
- Inspection summaries
- Diaries
- Charts

The information contained in the records must be relevant to the ultimate decision. Relevancy means that information relied upon is logically connected to the decision. Any decision not based on all of the **right type of information** may be in jeopardy. A few things to keep in mind include:

- Follow all phone calls with conversation confirmation letters.
- Log all inquiries and phone calls.
- Periodically review the records kept.
- Correct or rebut any discrepancies found in writing.
- Stay on top of the project.

NOTE: Several important changes to the Contracts Disputes Act of 1978 came about with passage of the Federal Courts Administration Act of 1992. Provisions of the Act are briefly described in Exhibit 5-17.

DISPUTES PROCESS

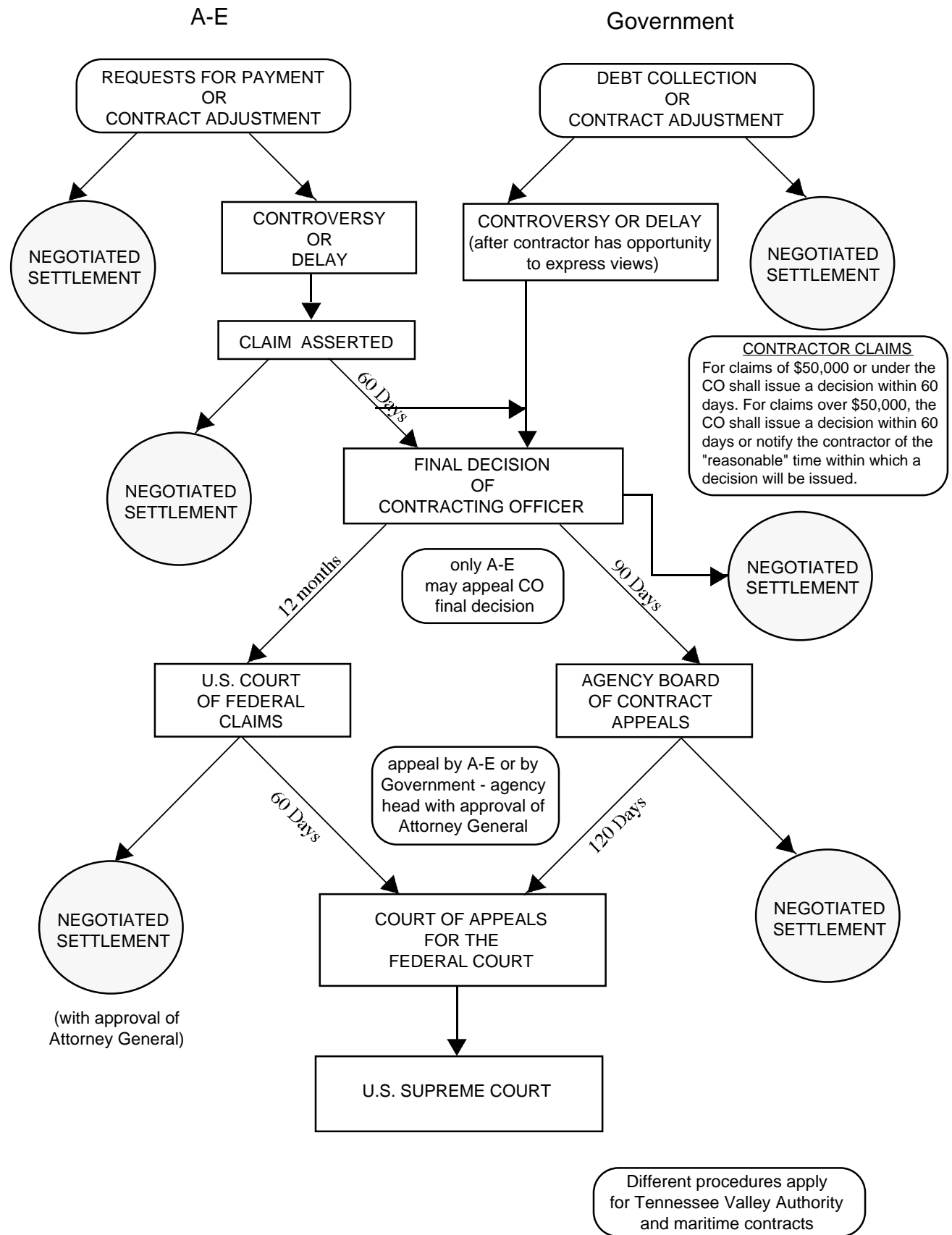


Exhibit 5-16

FEDERAL COURTS ADMINISTRATION ACT OF 1992

1. The name of the U. S. Claims Court was changed to the United States Court of Federal Claims.
2. Changes were made in the law on certification of claims to allow the courts and boards to take jurisdiction of claims with defective certifications.
3. The law allows certifications to be executed by a person duly authorized to bind the contractor with respect to the claim.
4. The United States Federal Claims Court has jurisdiction to hear disputes concerning termination of a contract, either for default or convenience, rights intangible or tangible property, compliance with cost accounting standards, and other non-monetary disputes on which a Contracting Officer decision has been issued. Basically, this gives the United States Federal Claims Court the same jurisdiction as the BCAs. Prior to this change the Claims Court could not hear disputes on merely the termination decisions without the monetary claim also being filed.
5. The changes are effective with respect to all claims filed before, on or after the enactment date (29 October 1992) of the Act, except for those claims which have been the subject of an appeal to BCA or suit in the Claims Court prior to the date of enactment. This means that any claim pending will be allowed to go forward even if it has a defective certification, as long as an appeal has not yet been filed at either BCA or in the Claims Court. Any interest due on such claims will be calculated from the effective date of the Act, 29 October 1992. Interest will not be calculated from the date the claim was received by the Contracting Officer.
6. Any claim which is filed after 29 October 1992 will allow interest to run from the date the Contracting Officer receives the claim, regardless of whether or not it has a defective certification. The defective certification appears to have no bearing on when interest will start to run.

Exhibit 5-17

Post Design Services

The design contract is not usually finished upon completion of the design phase. The need for the services of an A-E contractor seldom ends upon acceptance of the plans and specifications. The need for professional services will continue, and the types and amounts of service will depend upon the size and complexity of the project. Furthermore, the design obtained under the A-E contract must ultimately be judged by the success or failure of the construction phase of the project.

Not all agencies routinely acquire the same post design services, nor do they use the same terminology or acronyms to describe them. For

instance, the following terms are considered synonymous in describing the types of post design services which may be needed:

- Post Construction Administration/Award Services (PCAS).
- Special Services.
- Post Design Services.
- Construction Contract Support Services (CCSS).
- Construction Observation.

Some of the types of services needed are described in Exhibit 5-18.

**OTHER SERVICES WHICH MAY BE REQUIRED
(ANY OR ALL SERVICES MAY BE INCLUDED IN THE SCOPE.)**

- Review of the construction contractor's submittals, such as shop drawings, catalogue cuts, manufacturers' certificates, samples, and literature.
- Coordinate and review progress payment requests.
- Assist in inspections.
- Consultation during construction. Consultation may involve meetings that are described and scheduled in advance, or that are unscheduled and defined as the need arises.
- Preparation of Operation Manuals.
- Preparation of As-built drawings.
- Participation in preconstruction conferences, as well as pre-bid conferences.
- Evaluation of Value Engineering Change proposals submitted by the construction contractor.
- Preparation of interior design for the procurement of furniture, furnishings and accessories.
- Performance of various surveys, e.g.
 - Property - Topographic - Geologic - Soils
 - Hydrologic - Hydrographic - Structure Analysis
- Preparation of new or revision of existing criteria such as specifications, design manuals and definitive drawings.
- Inspection and reporting on the condition and potential uses of existing structures.
- Preparation of quantity and cost estimates.

Exhibit 5-18

Of the services listed in Exhibit 5-18, one of the most popular is the requirement to perform inspection and/or surveillance of the construction contract.

In **military** agencies, this is sometimes referred to as Title II services.

In **civilian** agencies, it is a service that is similar to that usually performed by a Construction Manager and referred to as "construction observation."

It is sometimes recognized prior to issuance of the design contract, that due to contract workload or skills required, the use of A-E inspection services is necessary.

In this case, it can become a part of the negotiations on the **initial contract** with the amount and details of the services required tailored to the need.

If it isn't recognized early in the planning stage, the services can still be acquired by initiating a **separate contract**.

5.7 Contract Closeout

If the A-E is required to perform services beyond the time when the design contract is considered to be complete, either by option or under the terms of the original contract, the contract cannot be closed until such time as the services have also been completed.

An A-E contract shall not be closed out until

- A-E's performance has been reviewed and the contracting officer has taken action on any deficiencies;
- Any action taken to recover damages is fully resolved;
- A-E liability issues are resolved (otherwise such action is tantamount to giving the A-E a release of claims for damages resulting from all deficiencies known to the Government.)

A-E Evaluations

FAR 53.236-2(d)

For each contract (or delivery order issued under IQ contracts) of more than \$25,000*, a performance evaluation report shall be prepared by the cognizant contracting authority, using the SF 1421, Performance-Evaluation (A-E). Exhibit 5-19 is a copy of the form and instructions on completing it.

* Check your agency policy for any requirement to perform evaluations under \$25,000.

CHAPTER 5

PERFORMANCE EVALUATION (ARCHITECT-ENGINEER)				1. PROJECT NUMBER	
				2. CONTRACT NUMBER	
IMPORTANT: Be sure to complete Performance section on reverse. If additional space is necessary for any item, use Remarks section on reverse.					
3. TYPE OF REPORT (<i>Check one</i>) <input type="checkbox"/> INTERIM <input type="checkbox"/> COMPLETION OF DESIGN OR STUDY <input type="checkbox"/> COMPLETION OF CONSTRUCTION <input type="checkbox"/> TERMINATION			4. REPORT NUMBER		5. DATE OF REPORT
6. NAME AND ADDRESS OF CONTRACTOR			7. PROJECT DESCRIPTION AND LOCATION		
8. OFFICE RESPONSIBLE FOR					
A. SELECTION OF CONTRACTOR		B. NEGOTIATION/AWARD OF CONTRACT		C. ADMINISTRATION OF CONTRACT	
9. CONTRACT DATA					
A. TYPE OF WORK			B. TYPE OF CONTRACT <input type="checkbox"/> FIXED-PRICE <input type="checkbox"/> OTHER (<i>Specify</i>) <input type="checkbox"/> COST-REIMBURSEMENT		
C. PROJECT COMPLEXITY <input type="checkbox"/> DIFFICULT <input type="checkbox"/> ROUTINE <input type="checkbox"/> SIMPLE		D. PROFESSIONAL SERVICES CONTRACT			
INITIAL FEE \$		AMENDMENTS		CLAIMS BY CONTRACTOR	
		NO.	AMOUNT \$	NO.	AMOUNT \$
				TOTAL FEE \$	
E. DATE CONTRACT AWARDED		F. CONTRACT COMPLETION DATE (<i>including extensions</i>)		G. ACTUAL COMPLETION DATE OF CONTRACT	
10. KEY CONSULTANT DATA					
A. NAMES		B. ADDRESS		C. SPECIALTY	
11. CONSTRUCTION COSTS \$		A. INITIAL ESTIMATE \$		B. AWARD \$	
12. CONSTRUCTION CHANGES AND DEFICIENCIES		NUMBER		TOTAL	
A. CONSTRUCTION CHANGES				\$	
B. CONSTRUCTION CHANGES RESULTING FROM DEFICIENCIES IN A-E PERFORMANCE				\$	
C. DEFICIENCIES PAID FOR BY A-E				\$	
D. DEFICIENCIES PAID FOR BY GOVERNMENT				\$	
13. OVERALL RATING <input type="checkbox"/> EXCELLENT <input type="checkbox"/> AVERAGE <input type="checkbox"/> POOR			14. RECOMMENDED FOR FUTURE CONTRACTS? <input type="checkbox"/> YES <input type="checkbox"/> NO (<i>If "NO," explain in REMARKS on reverse</i>)		
15A. NAME AND TITLE OF RATING OFFICIAL			15A. NAME AND TITLE OF REVIEWING OFFICIAL		
15B. SIGNATURE		15C. DATE		16B. SIGNATURE	
				15C. DATE	

Facsimile

Exhibit 5-19

Standard Form 1421
Front

CONTRACT ADMINISTRATION

PERFORMANCE																
STAGES OF SERVICES (As applicable)					RATING FACTORS/RATINGS								RATED BY			
					NOT APPLICABLE	ACCURACY	COMPLETENESS	COOPERATION	COORDINATION	MANAGEMENT	MEETING SCHEDULE	PERSONNEL	ABILITY	WORK QUALITY	CODE LEGEND:	
															+	EXCELLENT
													SIGNATURE AND DATE			
CONCEPTS	SCHEDULE (Mo., day, yr.)	FROM	TO	ARCH.												
				STRU.												
	ACTUAL (Mo., day, yr.)	FROM	TO	MECH.												
				ELEC.												
TENTATIVES	SCHEDULE (Mo., day, yr.)	FROM	TO	ARCH.												
				STRUC.												
	ACTUAL (Mo., day, yr.)	FROM	TO	MECH.												
				ELEC.												
WORKING DRAWINGS	SCHEDULE (Mo., day, yr.)	FROM	TO	ARCH.												
				STRUC.												
	ACTUAL (Mo., day, yr.)	FROM	TO	MECH.												
				ELEC.												
ESTIMATES				A/S												
				M/E												
CRITICAL PATH METHOD				PRE-AWARD												
				POST-AWARD												
POST CONSTRUCTION CONTRACT SERVICES				SHOP DWGS												
				MANUALS												
INSPECTION				FIELD												
				OFFICE												
SOLICITATION DOCUMENTS																
REMARKS																

Instructions For Use of SF 1421

Blocks 1 and 2 are self explanatory.

Block 3: Type of Report. A separate report must be filed on each evaluation. Under no circumstances are they to be combined, i.e. design/construction. Check which is applicable.

Blocks 4 through 8 are self explanatory.

Block 9: Contract Data information is to be completed only during design evaluation.

Under Block D, state the initial fee negotiated, followed by the number of amendments, and dollar amount of each. Then enter the number of claims filed by the contractor, and the total dollar amount claimed. The total fee should include any adjustments in the design fee due to modifications to the contract.

Blocks E, F, and G are self explanatory.

Block 12 is executed at the completion of the construction contract.

Line A: Enter the total dollar value of all contract modifications.

Line B: Enter the dollar value of all modifications representing errors and omissions in the original construction contract.

Line C: Enter the recovery costs resulting from formalized A-E liability management procedures initiated in accordance with agency procedures.

Line D: Enter the difference between lines B and C.

Block 10: Enter names and addresses of consultants, and their respective specialties.

Reverse of the SF 1421 Performance Grid:

A/E evaluators will supply performance evaluation for:

- Concepts.
- Tentatives:
- Working Drawings.

Construction managers are responsible for addressing lines entitled:

- Working Drawings
- Estimates (relating to estimates for changed work provided by the A-E.
- Critical Path Method (Only if A-E has provided the scheduling services)
- Post Construction Services (i.e., shop drawings and Manuals),
- Inspections (i.e. field visits).
- Solicitation Document Number.

In the upper right hand margin of the form appears the code legend to be used.

Under Remarks, consideration is given to some of the following issues and explanations provided.

- Clarity and completeness of design:
Was there a necessity for an excessive number of changes to correct errors and omissions?

Instructions For Use of SF 1421

(Continued)

Was it necessary to issue an inordinate number of clarifications?

Were there numerous claims submitted based on alleged ambiguities in the documents?

- Responsiveness of the A-E during construction to requests for information and clarifications.
- Timeliness and effectiveness of A-E shop drawing review process.
- A-E acceptance of liability upon demand. (This could be an indication of a truly professional attitude as opposed to an admission of professional negligence).
- Field visit support:
Did the A-E provide the proper individual in a timely manner?

Was a written report submitted and did solutions to problems appear to be cost effective?

Did The A-E provide new information which contributes to the defense of the claim or identification of a contractor deficiency?

- Changes:
Did the A-E provide re-designs to reflect error omissions and/or revise criteria in a timely manner?

Were cost estimates useful/realistic in support of negotiations?

- As-Builts/Manuals/Schedules: Comment on adequacy of the A-E involvement on development or review of such documents.
- A-E of Record, as opposed to consultants: If consultant played a major role in design or support during construction, complete a separate form for the consultant.

FAR 36.604(a)

1. The evaluation shall be prepared **after final acceptance of the A-E contract** work, or after termination.

2. A report may also be prepared after **completion of the actual construction** of the project and most agencies have adopted policies stating that one shall be prepared.

3. In addition, **interim** reports may be prepared at any time. (An interim report should always be prepared and presented to the A-E when an unsatisfactory rating on any element is contemplated in order to provide the A-E an opportunity to respond and/or improve its performance.) Some agencies have policies that require an interim evaluation as follows:

- ① After tentative drawings have been submitted. (Design stage up to 35%)

- ② Final Work Drawings (80% to 100%).
- ③ 50% completion stage of the construction project.
- ④ When construction project is completed.

The purposes of the A-E performance evaluation are to:

- Prevent the retention of poor performers.
- Recognize outstanding A-E performances.
- Provide documentation for possible use in termination or liability actions.
- Act as a catalyst for overall improvement in performance in the architecture-engineer community.
- Disseminate performance data to other contracting offices by means of a data retrieval system, i.e., Construction Contractor Appraisal Support System (CCASS) and/or Architectural-Engineering Contractor Appraisal Support System (ACASS).



NOTE: ACASS: The U. S. Army Corps of Engineers maintains an A-E contract administration and support system that is interactive with all agency offices involved in the A-E selection process if they wish to subscribe. The system includes qualification data on A-E firms that wish to do business with the agencies, but it also gives past performance reports on firms that have previously done business with them, based on the SF 1421 reports. The reports are available to any office that has the capability to interact with the system; they remain in the system for 6 years. It requires a “User-ID Application” form which must be submitted.

Ordinarily the evaluating official who prepares the report should be the person responsible for monitoring contract performance.

In the case of the **design** contract, it will be the person responsible for contract inspection and surveillance.

In **construction**, the responsibility is in the construction project overseer’s hands.

FAR 36.604(b)

In any case, the report is reviewed and approved by a higher authority which is designated by your agency's policy (which also must have procedures for ensuring that fully qualified personnel do the evaluations and reviews.)

All matters pertaining to the rating under consideration are carefully reviewed and analyzed to permit a conclusive determination regarding agreement or disagreement with the performance appraisal of the rating official.

During the design phase, the A-E is evaluated on completeness, accuracy, coordination and timeliness. An OUTSTANDING evaluation on a design contract should be held and reconsidered after the evaluation at the completion of construction.

The second review is held at the completion of the construction contract and deals with such matters as the constructibility of the design and the A-E's performance in consultation and other services performed during construction.

If the evaluating official concludes on either report that a contractor's overall performance was UNSATISFACTORY, the A-E shall be advised in writing that a report of unsatisfactory performance is being prepared and the basis for the designation. The procedures which are recommended in processing an unsatisfactory performance evaluation are listed in Exhibit 5-20.

**UNSATISFACTORY PERFORMANCE RATING
RECOMMENDED PROCEDURES**

- The A-E firm is notified in writing, accompanied by a copy of the proposed evaluation.
- The A-E firm is invited to meet and discuss the evaluation. The A-E's recourse is to submit a rebuttal and/or allege mistakes in the evaluation.
- The evaluation should remain unsigned until such time as the A-E meets, or refuses in writing to meet with you.
- The firm's rebuttal must be reviewed, and a response written to each point before assigning a final rating and signing of the evaluation.
- The A-E's rebuttal must become an attachment to the evaluation.

Exhibit 5-20

FAR 36.604(c)

Distribution is in accordance with your agency instructions. However, the original must be held in the A-E's contract file. Normal procedures do not call for distribution of the performance report to any office outside the agency that prepares it, with the exception of ACASS. Reports must be retained at least 6 years in the contract activity.

THE ANSWERS PLEASE

The scenario at the beginning of the chapter introduced several basic questions which should be easily answered after completing this lesson. See how many you can answer without referring back to the text.

1. What is required in administering an A-E contract?

All duties associated with performance.

- *Conduct post-award conference.*
- *Apply peculiar A-E clauses.*
- *Negotiate and issue all modifications.*
- *Track submittals.*
- *Resolve all disputes.*
- *Issue contracting officer's Final Decisions.*
- *Process A-E Performance Evaluations.*

2. How does administering an A-E contract differ from that of a supply or construction?

Differences are many, but some of them are considered significant.

In construction the administration requires inspecting and accepting as progress is made on a daily basis. There are multiple tasks to monitor which are peculiar to the construction phase, i.e. Payrolls, Davis Bacon Wage Rates, Buy American - Construction Materials, quality of materials and workmanship, as well as progress. There are special clauses that apply only to construction contracts.

Only one performance evaluation which is issued at the conclusion of the construction is required, although interim evaluations are sometimes issued.

In the administration of an A/E contract, the Government is interested primarily in quality and timeliness of the submittals required. The submittal schedule is set forth in the contract and progress is monitored by means of discussions with the designer, as well as periodic visits that may be conducted at the A-E's place of business. The submittals consist of copies of the specifications and drawings as progress is made, beginning with the A-E's concept and ending with the final plans and specs. There are special clauses used only for A-E contracts, as well as other clauses in which an alternate wording is inserted in order to tailor it to the A-E environment. In A-E contracting two performance evaluations are required, one at the end of the design contract, and the other at the conclusion of the construction phase.

3. *How is progress measured?*

By the timeliness and quality of submittals.

4. *Is a conference held much the same as in a construction contract?*

Yes, it is just as important to hold a predesign conference as to hold a preconstruction conference, and for the same reasons.

5. *How are progress payments made?*

Progress payments are made in the same manner and under the same requirements as construction progress payments are made. They are based on progress. The Prompt Payment Act also applies.

6. *What about delays, suspension of work, mods and terminations?*

Delays in an A-E contract are normally connected with the submittal process, whereas in a construction they may occur anytime and anyplace throughout the construction phase. Work suspension rarely occurs in an A-E contract, but when it does the process is the same as in construction. Modifications are processed in the same manner, only the reasons are sometimes different. Terminations are covered in one clause in lieu of two, i.e. Termination for Convenience and Termination for Default.

7. *How do you assure quality in an A-E contract?*

Quality is an important element in the selection of an A-E. Without quality in design, the Government will end up with less than a quality end product - the building. The difference, however, is that the Brooks Act permits the Government to initially select a contractor based on an assessment of the firm's professional reputation, rather than price. This makes A-E contracting unique.

APPENDIX A

REDICHECK

REDICHECK Plan and Specification Review

1. Preliminary Review

- a. Quickly make an overview of all sheets, spending no more than one minute/ sheet to become familiar with the project.

2. Specification Check

- a. Check specification for bid items. Are they coordinated with the drawings?
- b. Check specification for phasing of construction. Are the phases clear?
- c. Compare architectural finish schedule to specification index. Ensure all finish materials are specified.
- d. Check major items of equipment and verify they are coordinated with contract drawings. Pay particular attention to horsepower ratings and voltage requirements.
- e. Verify that items specified "as indicated" or "where indicated" are in fact indicated on contract drawings.
- f. Verify that cross referenced specification sections exist.
- g. Try not to indicate thickness of materials or quantities of materials in specifications.

3. Plan Check Civil

- a. Verify that site plans with new underground utilities (power telephone, water, sewer, gas, storm drainage, fuel lines, grease traps, fuel tanks) have been checked for interferences.
- b. Verify that existing power/telephone poles, pole guys, street signs, drainage inlets, valve boxes, manhole casings, etc., do not interfere with new driveways, sidewalks, or other site improvements.
- c. Verify that limits of clearing, grading, sodding, grass or mulch are shown.
- d. Verify fire hydrants and street light poles are shown in their intended locations.
- e. Verify profile sheets show other underground utilities and avoid contacts.
- f. Verify horizontal distances between drainage structures and manholes match with respect to scaled dimensions and stated dimensions on both plans and profile sheets.

- g. Verify provisions have been included for adjusting valve box and manhole castings (sewer, power, telephone, drainage) to match final or finish grade of pavement, swales, or sidewalks.

- h. Verify all existing and proposed grades are shown.

4. Plan Check Structural

- a. Verify property line dimensions on site plan against architectural.
- b. Verify building is located behind set back lines.
- c. Verify column lines on structural and architectural.
- d. Verify all column locations are the same on structural and architectural.
- e. Verify perimeter slab on structural matches architectural.
- f. Verify all depressed or raised slabs are indicated.
- g. Verify slab elevations.
- h. Verify all foundation piers are identified.
- i. Verify all foundation beams are identified.
- j. Verify roof framing plan column lines and columns against foundation plan column lines and columns.
- k. Verify perimeter roof line against architectural roof plan.
- l. Verify all columns and beams are listed in column and beam schedules.
- m. Verify length of all columns in column schedule.
- n. Verify all sections are properly labeled.
- o. Verify all expansion joint locations against architectural.
- p. Verify dimensions.

5. Plan Check Architectural

- a. Verify all concrete columns and walls against structural.
- b. Verify on site plans that all existing and new work is clearly identified.

- c. Verify building elevations against floor plans. Check in particular roof lines, window and door openings, and expansion joints.
- d. Verify building sections against elevations and plans. Check roof lines, windows and door locations.
- e. Verify wall sections against architectural building sections and structural.
- f. Verify masonry openings for windows and doors.
- g. Verify expansion joints through building.
- h. Verify partial floor plans against small scale floor plans.
- i. Verify reflected ceiling plans against architectural floor plan to ensure no variance with rooms. Check ceiling materials against finish schedule, check light fixture layout against electrical, check ceiling diffusers/registers against mechanical, check all soffits and locations of vents.
- j. Verify all room finish schedule information including room numbers, names of rooms, finishes and ceiling heights. Look for omissions, duplications and inconsistencies.
- k. Verify all door schedule information including sizes, types, labels, etc. Look for omissions, duplications, and inconsistencies.
- l. Verify all rated walls.
- m. Verify all cabinets will fit.
- n. Verify dimensions.

6. Plan Check Mechanical and Plumbing

- a. Verify all new electrical, gas, water, sewer, etc. lines connect to existing.
- b. Verify all plumbing fixture locations against architectural. Verify all plumbing fixtures against fixture schedule and/or specs.
- c. Verify storm drain system against architectural roof plan. Verify size of all pipes and that all drains are connected. Verify wall chases are provided on architectural to conceal vertical piping.
- d. Verify sanitary drain systems pipe sizes and all fixtures are connected.

- e. Verify HVAC floor plans against architectural.
- f. Verify sprinkler heads in all rooms.
- g. Verify all sections are identical to architectural/structural.
- h. Verify that adequate ceiling height exists at worst case duct intersection.
- i. Verify all structural supports required for mechanical equipment are indicated on structural drawings.
- j. Verify dampers are indicated at smoke and fire walls.
- k. Verify diffusers against architectural reflected ceiling plan.
- l. Verify all roof penetrations (ducts, fan, etc.) are indicated on roof plans.
- m. Verify all ductwork is sized.
- n. Verify all notes.
- o. Verify all air conditioning units, heaters, and exhaust fans against architectural roof plans and mechanical schedules.
- p. Verify all mechanical equipment will fit in spaces allocated.

7. Plan Check Electrical

- a. Verify all plans are identical to architectural.
- b. Verify all light fixtures against architectural reflected ceiling plan.
- c. Verify all major pieces of equipment have electrical connections.
- d. Verify location of all panel boards and that they are indicated on the electrical riser diagram.
- e. Verify all notes.
- f. Verify there is sufficient space for all electrical panels to fit.

8. Plan Check Kitchen/Dietary

- a. Verify equipment layout against architectural plans.
- b. Verify all equipment is connected to utility systems.

APPENDIX B

INDEFINITE QUANTITY A-E CONTRACTS

INDEFINITE DELIVERY TYPE CONTRACTS

Indefinite delivery type contracts give the government flexibility in both quantities and delivery scheduling, and allow simplified ordering of services after needs arise. They also limit the government's obligation to the minimum quantity specified in the contract. There are three types of indefinite delivery contracts (See FAR 16.5):

1. Definite Quantity Contracts

A definite quantity contract provides for delivery of a definite quantity of specific services for a fixed period. Deliveries are scheduled at designated locations upon order. A definite quantity contract may be used when it can be determined in advance that a definite quantity of readily available services will be required during the contract period but the precise location or timing of the requirement cannot be accurately determined. This type of contract is seldom used for A-E contracts because the requirements during a given period are usually too vague.

However, it might be used when a specific standard design will require site adaptation to several known sites within a specified period and each site is subject to separate authorization. Since the entire quantity to be ordered is known at the time of award, it must be funded at that time.

2. Requirements Contracts

A requirements contract provides for filling all actual requirements of designated government activities for specific services during the contract period, with deliveries to be scheduled by placing orders with the contractor. A requirements contract is appropriate when a recurring requirement is anticipated but the government cannot guarantee a minimum amount of services to be ordered during a definite period. Under a requirements contract all requirements for the type of services contracted for must be placed with the contractor.

Requirements contracts are not usually appropriate for A-E services because under most circumstances it would not be possible to select "the best qualified" contractor if we cannot determine when or how much work will be required.

3. Indefinite Quantity Contracts

An indefinite quantity contract may be used when it is impossible to decide in advance the precise quantities needed by the government, and the government does not want to commit itself for more than a minimum quantity. Indefinite quantity (IQ) contracts often are used for A-E services*. They provide a vehicle for the quick award of relatively small, similar projects. These contracts provide for an indefinite quantity, within stated limits, of specific services to be furnished during a fixed period. Services are scheduled by placing orders with the contractor.

This type of contract requires the government to order and the contractor to furnish at least the minimum quantity of services specified in the contract. The contractor is also required to furnish any additional quantities of the services specified in the contract and ordered by the government up to the maximum specified in the contract. The minimum amount must be more than a nominal quantity, but it should not exceed the amount the government is reasonably certain to order. The maximum amount must be realistic and based on the most current information available. This information may include historical demand data for that particular service and projected demands based on customer surveys, acquisition plans, and long-range plans. Funds for the minimum quantity are obligated by the contract at time of award. Funds for other than the minimum quantity are obligated by each delivery order, not by the contract itself.

*Your agency may refer to A-E IQ contracts by a different term. GSA, for example, calls A-E IQ contracts "Supplemental A-E's."

A-E IQ CONTRACT LIMITATIONS

Indefinite quantity A-E contracts are appropriate when the exact times or quantities of future services are not known at the time of contract award. These contracts are designed for relatively small projects requiring similar types of work. They are not to be used for work where wide variation in tasks may be expected. There is no assurance that the contractor will be the most qualified firm for all tasks in such a situation. When the prime contractor must subcontract a significant portion of the anticipated work to consultants not identified during the slate/selection/negotiation processes, the appropriateness of this contracting vehicle is questionable.

An initial project may be included as a "prototype" order but this does not replace the statement of work. The contract should always include a general statement of work specifying the type of work that may be ordered and should clearly define the type of orders that may be placed in the future.

The basic term for an A-E IQ contract is limited to one year. Agency policy may allow including an option to extend the term of the contract for one or more additional years. Certain features of these limitations deserve brief mention. A-E IQ contracts generally contain three types of limitations:

- (1) **Guaranteed minimum.** This amount must be obligated at the time of award; it is based on the quantity of work that is certain to be ordered based on existing requirements or historical data. The minimum guarantee should always be specified in terms of a specific quantity of work.
- (2) **Contract maximum.** This is the maximum dollar amount that can be ordered during the specified period. Exceeding this limit requires a properly approved J&A for new work. "Unused" amounts do not carry over to other periods.
- (3) **Order limit.** The contractor is not obligated to accept orders above this dollar amount. If it becomes necessary to place such an order, the official file should contain documentation from the contracting officer explaining the necessity.

PREAWARD

STATEMENT OF WORK

Projects ordered under A-E IQ contracts must be for the common technical skills or general A-E services for the designated location, and must be within the parameters expressed in the basic IQ contract statement of work (SOW).

The statement of work for an A-E IQ contract should be sufficiently detailed to enable both parties to the contract to understand clearly what work may be ordered. If an initial project is not included as part of the contract award, the SOW should include a list of potential work elements or tasks that may be ordered. It must have enough detail for negotiation of hourly rates for the various A-E disciplines required, overhead, profit, and other costs peculiar to the services to be ordered. If an initial project, or "seed project," is included as part of the contract award, the SOW need not be as detailed. This initial project may serve as a prototype order, but the contract's work statement should explain what other types of services or work locations are covered. Whenever possible, A-E IQ contracts should be awarded with an initial project included in the award.

An effective SOW will:

- (1) Contain only tasks that are clear, concise, and priceable and have statements of requirements written in a style that eliminates the possibility of more than one interpretation.
- (2) Provide a realistic balance among elements in keeping with the program acquisition phase (for example, make sure that engineering data requirements are not overly emphasized to the detriment of the system itself).
- (3) Make maximum use of federal, military, and nationally recognized industry specifications and standards. (These are understood by large segments of industry and do not require the learning curve that would be associated with a brand new specification.)
- (4) Use tailoring and streamlining effectively to adapt existing specifications and standards to actual program requirements.
- (5) Minimize government control, which may preclude a contractor's creativity.

***Remember:** A-E IQ contracts may not be awarded for personal services, hourly engineering, or hiring engineers in violation of other prohibitions. All A-E IQ contract negotiations must be based on a specific written statement of work (SOW) to be performed for a fixed price by personnel solely under the control and direction of the contractor.*

SPECIAL CLAUSES AND CONSIDERATIONS FOR A-E CONTRACTS

Most A-E design contracts include a requirement for the A-E to provide consultation and advice during construction. Such services may also be required for work ordered under an A-E IQ contract. When you anticipate that this may be necessary, the rates to be charged for such services should be established during negotiation of the contract or order.

A-E contractors may be required to provide inspection services if all the inspection services required on a particular job are procured through contract. (You cannot have the A-E perform some inspection services and government personnel perform other inspection services on the same job.) The contract or order should clearly identify any such inspection services required and to whom the results of such inspections may be provided. Inspection services should be awarded on a fixed-price basis.

If the contract or order includes an option for consultation and advice or for inspection services, it should also include a time limitation for exercising the option.

SYNOPSIS

The synopsis must include a general description of the intent of the contract. If an initial project is to be included in the award, it should be described along with a general description of any other services that might be ordered under the contract.

The CBD announcement includes the evaluation criteria to be used by the Boards. These criteria are listed in relative order of importance, but assigned weights or numerical factors are not to be listed. These criteria should include the volume of work awarded to the firm by the Government during the previous 12 months.

PROFIT

The profit rate for an IQ contract may be determined for each delivery order individually or a set rate may be negotiated to be used throughout the term of the contract. To use a set rate, all factors in the initial profit determination must remain essentially the same for all delivery orders. A set profit rate might be appropriate where the nature and complexity of the tasks are essentially the same. When a set profit rate is used, a note in the memorandum of negotiations or business clearance is required stating that the initial profit rate is appropriate and that all elements of the profit determination remain essentially the same.

CONTRACT AWARD

Indefinite quantity contracts will show the total contract amount in Block 7 of the SF 252 based on the contract maximum amount. It is important to ensure the amount shown in Block 7 of the SF 252 reflects the total not-to-exceed contract amount against which delivery orders may be placed. Block 9 of the SF 252 will show funds obligated only for the minimum quantity.

All contracts must be signed by an individual delegated contracting officer authority consistent with the maximum dollar value of the contract. An Individual Contract Award Report must be completed for any delivery order over \$25,000, and for an initial award of \$25,000 or less if the indefinite delivery contract maximum exceeds \$25,000. A-E services are one of the four designated industry groups covered by the Small Business Competitiveness Demonstration Program. As such awards for A-E services between \$500 and \$25,000 must also be reported.

POST AWARD

ORDERING OFFICERS

Ordering officers are, in effect, contracting officers whose authority is limited to placing orders under the contract. The ordering officer's appointment serves as a very limited warrant authorizing him/her to sign or issue delivery orders and obligate funds. Ordering officers are responsible for ensuring that services ordered under the contract are within the contract scope and that proper funds are available.

DELIVERY ORDERS

Work ordered under an IQ contract must be ordered on a form, prescribed by your agency signed by a warranted individual acting within the limits of her/his warrant. Since delivery orders issued under A-E IQ contracts are usually individually negotiated actions for work not prepriced in the basic contract award, the delivery order must be signed by the contractor. Each order issued under a contract must stand as a distinct order, separate from other orders under the same contract, with its own scope and price.

The delivery order includes a work statement clearly identifying the services to be provided in accordance with the terms of the contract and the price to be paid for those services. The use of unpriced or blanket orders is not permitted. Under any indefinite quantity contract, the delivery orders are used to definitize quantities ordered; unpriced or blanket delivery orders do not adequately definitize items ordered and are not to be used for A-E services.

Delivery orders incorporate the clauses and provisions of the basic contract; it is not necessary to repeat them in the order. Any special clauses or provisions applicable to the specific delivery order must be included in that order. A delivery order cannot be used to modify or change the terms or conditions of the underlying contract.

The delivery order should set firm completion dates or performance periods. Be sure to include appropriate time for government reviews when establishing completion dates. The delivery order must provide funds either by stating that funds obligated by the contract for the minimum guarantee apply or by citing accounting and appropriation data for work ordered beyond the minimum guarantee.

A FAXed contractor proposal for the affected order will suffice, provided the ordering official verifies the proposal's authenticity. All FAXed delivery order proposals must be followed with the original. FAX delivery order proposals should not be routine.

1. Preparation of Delivery Orders

A-E IQ delivery orders should contain the following information:

- Date of the order.
- Contract and order number.
- Accounting and appropriation data.
- Detailed statement of work or description of services being ordered.

Delivery orders under A-E IQ contracts may be unilateral or bilateral. If the terms and conditions do not vary and the services ordered have been prepriced in the basic award, a unilateral order is appropriate. If the terms and conditions of the delivery order vary from those in the basic contract, there is a need to document the contractor's agreement; a bilateral order is then required. Distribute delivery orders in the same manner and quantity as the basic contract.

2. Oral Orders

A-E contracts generally do not include the type of services that would require such urgency that a warranted contracting or ordering officer may not be available in adequate time. However, there may be exceptions, and if oral orders are to be allowed for emergency situations, the contract must include specific procedures for placing and approving such orders. It should also specify individuals authorized to place oral orders and the limitations on such orders. An order may be initiated by telephone in emergency circumstances provided the basic contract allows oral orders.

The oral order must include the same information as required for a written delivery order. Oral orders should be limited to those situations when it is absolutely essential to have the contractor start work before negotiations can be completed and a proper delivery order executed. Oral orders must be confirmed in writing by the contracting or ordering officer. This confirming order should clearly identify the emergency nature of the work ordered; no other work should be authorized on this order until negotiations can be completed.

3. Delivery Order Log

Each IQ file should contain a summary record or log of delivery orders issued to monitor expenditures under the contract. As a minimum, the delivery order log should identify the delivery order number, date issued, and dollar value, the cumulative amount of orders issued, and the balance remaining in the contract. The cumulative amount recorded on this log is used to determine

if the contract minimum has been satisfied or if the maximum is being approached. It does not indicate a balance available for making payments. You can also use the log to track the 6% fee limitation on A-E contracts.

MODIFICATIONS

Any modifications to delivery orders or to the contract must be accomplished on a SF 30, "Amendment of Solicitation/Modification of Contract." Check your agency procedures for numbering a delivery order modification.

In emergency circumstances, the contract or orders may be modified orally by the contracting or ordering officer, provided the oral modification is confirmed on a SF 30. Indefinite quantity contracts utilize both unilateral and bilateral modifications. For example, unilateral modifications, which require only a contracting officer's signature, are used to exercise an option to extend the contract term, to terminate the contract or an order, to correct accounting and appropriation data, or to make other administrative corrections. Bilateral modifications, which require the signature of the contractor and the contracting officer, are used to increase or decrease the contract or order scope, or to change the other terms or conditions of the contract or order.

Options

The contracting officer must justify the inclusion of any option, include the option in the CBD synopsis, and price the option in making the award. Options for additional services such as consultation and advice or inspection may be included in the contract and/or order. If the contract includes a provision allowing delivery orders to have their own options, be sure that the delivery orders include the same level of detail concerning the options a contract would.

In the event funds are not available for the minimum guarantee, the option may still be exercised as long as the contract contains FAR clause 52.232-19, "Availability of Funds for the next fiscal year." However, no delivery orders may be issued for the contractor to perform work until a modification providing funds is executed.

TERMINATION ACTIONS

Occasionally, a contractor refuses or fails to perform according to the terms of the contract or order. All reasonable and appropriate contractual measures should be taken to require the contractor to perform. If the contractor's performance still does not improve, the government has the right to terminate the contract or order for default although careful thought must go into the decision to terminate. If the minimum on an IQ contract has already been met, no further orders need to be issued to an unsatisfactory contractor. If the contract contains an option year that is scheduled to be exercised soon, consider not exercising the option in lieu of termination for default. If procurement is not a concern, these may be easier ways to conclude the unsatisfactory contractual arrangement.

Termination for convenience actions usually occur when the government's requirements change so that services are no longer needed or the government has not ordered the minimum specified in the indefinite quantity contract. (If the minimum has not been ordered, the contractor is not automatically entitled to receive the minimum guaranty.) The contracting officer must issue a written notice to the contractor terminating the contract. The contractor is entitled to submit a settlement proposal that is analyzed and negotiated to effect settlement of the terminated contract.

Sometimes it may be possible to execute a deductive modification or a no-cost settlement instead of pursuing termination of a contract or order. For example, a deductive modification might be appropriate where the contractor has completed a substantial amount of the work but did not complete all required work, and the remaining funds are adequate to complete the unfinished work and the contracting officer determines that it would not be in the government's best interest to pursue a termination. Similarly, a no-cost agreement is appropriate where the contractor has not incurred any costs relative to the terminated portion of the contract or order or is willing to waive the costs incurred, and no amounts are due to the government under the contract. The contracting officer should always consider the possibility of using a no-cost settlement or a deductive modification before issuing a termination notice.

Performance on an individual order also can be terminated. But, before terminating any contract or order, the contracting officer should consult competent advisors and must follow the procedures provided in the acquisition regulations and local instructions. As always, thoroughly document all actions taken.

INVOICING/PAYMENT

Contractors may invoice monthly in accordance with FAR Clause 52.232-10 "Payments Under Fixed-Price A-E Contracts," combining many delivery orders in one invoice. This method of invoicing is acceptable as long as the invoice identifies the delivery orders, date of services and amounts for which payment is requested. Many contractors submit copies of each delivery order for which payment is requested along with their invoice. This practice is the best way to identify the work performed and corresponding payment.

Each IQ file should contain a record of invoices and payments. As a minimum, the record should indicate date, number, and amount of the invoice, date invoice received, date forwarded for payment, amount of payment certified and total payments to date. If space permits, the applicable delivery orders may be listed with invoice number to which they pertain.

PERFORMANCE EVALUATIONS

Check your agency policy for thresholds for performance evaluations for each delivery order (or "single increment of work") under an indefinite quantity A-E contract. Evaluations may be prepared for delivery orders of lesser amounts. If the delivery orders relate to separate construction projects, performance evaluations would also be required at the end of each construction project. A final evaluation may be prepared for the contractor's overall performance prior to close out of the A-E IQ contract. The focus of this evaluation would be whether the firm is suitable for future similar A-E IQ contracts.

CONTRACT CLOSEOUT

If an A-E IQ contract is expected to have many delivery orders, it is suggested that delivery orders be closed out individually during the course of the contract, if possible. This will reduce the administrative and accounting problems that might otherwise be encountered after the contract term.

APPENDIX C
A-E FAR REFERENCES

NUMERICAL LISTING OF SPECIFIC FAR REFERENCES TO A/E.

FAR	TOPIC	TEXT
2.201	Definitions, Alternate I clause: (52.202-1)	See 52.202-1
3.104-7(d)(4)iv	Post-empl. restriction when Substituting for A/E sub.	See 52.204-2
4.404(c)	Security Req., Alternate II clause: (52.204-2)	4-13
5.203(c)	Publicizing notice: 30 days response time	3-21
5.205(d)	Synopsizing thresholds	3-20
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6.102(d)(1)	Selection of A/E sources is competitive under PL 92-582	1-3
12.104(a)(1&2&3)	Time of Delivery clauses (52.212-1,2): Don’t use in A/E	-
12.502	Suspension of work clause can be “ordered” by CO	5-36
12.505(a)	Suspension of Work clause (52.212-12) in A/E RFPs	4-10
15.406-1(a)(2)	UCF exemption for A/E contracts	4-5
15.609(d)	Competitive Range not applicable	-
15.812-2(a)(2)	Integrity of Unit Prices clause (52.215-26): Don’t use	-
15.903(d)(1)	6% fee limitation for A/E contracts	3-10
17.200	Options Subpart does not apply to A/E	-
19.102(g)(3446)	Size Standard: Arch. & Ornamental Metal Work	N/A
19.102(g)(8711)	Size Standard: Eng. Services - Naval Architecture	N/A
19.102(g)(8712)	Size Standard: Architectural Services	2-29
19.502-2(a)	Total set-asides include A/E	2-29
19.1005(a)(3)	Designated industry group for SB Demo Prog.	2-29
22.1102	Professional Employee definition	1-7
27.201-2(a)	Patents: Authorization & Consent clause 52.227-1	
27.201-2(b)	Patents: Alt. I for 52.227-1 for R & D	
27.202-2	Patents: Notice and Assistance ... clause 52.227-2	
27.203-1(b)(5)	Indemnification clause not needed for A/E	
27.303	Clauses: reference to 27.304-3	
27.304-3	Patent rights clause for A/E R & D	
27.409(a)(1)(iv)	Rights in Data-Special Works clause 52.227-17 for A/E	
27.409(o)	Rights in Data-Special Works clause 52.227-17 for A/E	
27.304-3(b)(2)	Patents clause not needed for “standard types ...”	
28.311-2	Insurance-Liability clause not needed for A/E	-
31.103	Cost principles applicability to A/E	Xrf: 31.105
31.105	Cost Principles FAR section on A/E	4-22
31.109(h)(14)	Advance agreement: A/E costs in G & A	See 36.606d
31.201-7	Cost principles applicability reference to 31.105	Xrf: 31.105
32.111(d)(1)	Payments under F-P A/E Contracts clause: 52.232-10	4-11
32.902	Contract financing & invoice’ payments def. & 52.232-10; and Proper invoice definition & 52.232-26.	See 52.232-10 & 52.232-26
32.903	Due dates for making payments in 52.232-10	See 52.232-26

NUMERICAL LISTING OF SPECIFIC FAR REFERENCES TO A/E.

FAR	TOPIC	TEXT
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32.905(f)(5)	Progress payment date in receiving report	See 52.232-10
32.908(a)	Payments: If 52.232-10 is used, then include 52.232-26	-
36.000 & 36.101	Policies of Part 36 apply to A/E	-
36.102	A/E services defined (See also 36.601-4(a)(1&2))	2-5
36.103(b)	A/E services acquired using negotiation procedures	See 6.102-d1
36.209	Prohibition on construction contract going to design firm	4-32
36.601-1	Public announcement of A/E contracts	3-13
36.601-2	Competition & A/E contracting	See 6.102d1
36.601-3(a)	Source selection by procedures in 36.6 not 13, 14, 15	-
36.601-3(b)	SOW includes both A/E and other services	2-7
36.601-3(c)	Registered A/E not required: Use Parts 13, 14, 15	2-8
36.601-4(a)(1)	Professional A-E services defined by State law	See 36.102
36.601-4(a)(2)	A-E services with design/construction of real property	See 36.102
36.601-4(a)(3)	Incidental Services defined	2-6
36.601-4(a)(4)	Surveying and Mapping Services defined	2-7
36.601-4(b)	Award to firms law allows to practice A & E Profession	2-8
36.602-1(a)	Selection criteria	3-16
36.602-1(b)	Design competition use	1-19
36.602-2	Evaluation Boards must be established	3-23
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36.602-4	Selection authority	3-30
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36.604(a)	Preparation of Performance Evaluation Reports	5-51
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36.605	Independent Government estimate over \$25K	4-14
36.606(a)	Negotiations with most preferred firm	3-31
36.606(b)	RFP doesn't preclude modern design methods.	4-5
36.606(c)	Prohibition on construction contract going to design firm	See 36.209
36.606(d)	Advance agreement on CAD	4-32
36.606(e)	Consent to subcontractors	4-32
36.606(f)	Going to next firm on selection list if negotiations fail.	4-33
36.607	Release of information on selected firm	3-32
36.608	Liability of A/E firms for design deficiencies	5-32
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36.609-1(b)	Design within funding limitations negotiated amount	4-33
36.609-1(c)	Design Within Funding Limitations clause: 52.236-22	4-12
36.609-2(a)	Responsibility of the A/E to redesign at no cost for errors	4-8
36.609-2(b)	Responsibility of the A/E Contractor clause: 52.236-23	See 52.236-2a

NUMERICAL LISTING OF SPECIFIC FAR REFERENCES TO A/E.

FAR	TOPIC	TEXT
36.609-3	Work Oversight in A/E Contracts clause: 52.236-24	See 52.236-24
36.609-4	Require. for Registration of Designers clause:52.236-25	2-6
36.702(a)	Award using SF 252, A/E Contract	See 52.236-2a
36.702(b)	SFs 254 & 255 use	1-8
36.702(c)	Performance evaluation, SF 1421 use	See 36.604
37.101	A/E as example of service	Xrf: 36.6
37.204(b)	Advisory & assistance service excluded A/E per 36.6	2.5
43.000	Modifications policy (Part 43) applies to A/E	-
43.205(a)(2 to 4)	Changes --Fixed-Price (52.243-1): Use Alt. III for A/E	4-13
44.201-3(a)	Subcontract consent required for A/E	5-7
44.204(a)(2)(ii)	Subcontracts (F-P Contracts) 52.244.1 not used in A/E	-
44.204(d)	Subcontractors and Outside Assoc. 52.244-4 in A/E	See 52.244-4
46.801(a)(4)	GFP loss liability subpart does not apply to A/E	-
48.101(b)(2)	Value engineering sharing not permitted in A/E	-
48.102(a)	VE provisions are to be included in A/E contracts	-
48.102(h)	VE: separately priced line item for A/E	4-12
48.104-1(c)	Value engineering sharing not permitted in A/E	-
48.201(f)	VE --A/E (52.248-2): Use in A/E rather than 52.248-1	See 52.248-2
49.502(a)(1)(iii)	Term. for C ...(52.249-1) not used in A/E	-
49.502(b)(1)(iii)	Term. for C ...(52.249-2) not used in A/E	-
49.503(a)(1)	Term. (CR) (52.249-6: don't use in A/E	-
49.503(b)	Termination (F-P A/E) 52.249-7 used in A/E contracts	4-9
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52.232-10	Payments under F-P A/E Contracts	4-11, 5-29
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52.243-1	Changes --F-P: Use Alt. #3	4-13
52.244-4	Subs and Outside Associates and Consultants	4-13
52.248-2	VE-A/E	4-13
52.249-1	Term. for C of Govt. (F-P)(Short Form): Don't use	-
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52.249-7	Termination (F-P A/E)	4-9
53.214	Sealed Bidding forms not used in A/E	-

NUMERICAL LISTING OF SPECIFIC FAR REFERENCES TO A/E.

FAR	TOPIC	TEXT
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53.236-2	Prescribed forms for use in A/E	-
53.236-2(a)	SF 252 - Architect-Engineer Contract	4-5
53.236-2(b)	SF 254 - Architect-Engineer & Related Services Quest.	2-14
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FAR	TOPIC	TEXT
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36.601-4(a)(2)	A-E services with design/construction of real property	See 36.102
37.101	A/E as example of service	Xrf: 36.6
36.103(b)	A/E services acquired using negotiation procedures	See 6.102-d1
36.102	A/E services defined (See also 36.601-4(a)(1&2))	2-5
36.606(d)	Advance agreement on CAD	4-32
31.109(h)(14)	Advance agreement: A/E costs in G & A	See 36.606d
37.204(b)	Advisory & assistance service excluded A/E per 36.6	2.5
52.227-1	Authorization and Consent: flow down to subcontracts	
36.601-4(b)	Award to firms law allows to practice A & E Profession	2-8
36.702(a)	Award using SF 252, A/E Contract	See 52.236-2a
52.243-1	Changes --F-P: Use Alt. #3	4-13
43.205(a)(2 to 4)	Changes --Fixed-Price (52.243-1): Use Alt. III for A/E	4-13
27.303	Clauses: reference to 27.304-3	
36.603	Collecting data on A/E firms using SFs 254 and 255	2-15
36.601-2	Competition & A/E contracting	See 6.102d1
15.609(d)	Competitive Range not applicable	-
36.606(e)	Consent to subcontractors	4-32
32.902	Contract financing & invoice' payments def. & 52.232-10; and Proper invoice definition & 52.232-26.	See 52.232-10 & 52.232-26
31.105	Cost Principles FAR section on A/E	4-22
31.201-7	Cost principles applicability reference to 31.105	Xrf: 31.105
31.103	Cost principles applicability to A/E	Xrf: 31.105
2.201	Definitions, Alternate I clause: (52.202-1)	See 52.202-1
52.202-1	Definitions: Use Alt. #1	4-13
36.602-1(b)	Design competition use	1-19
52.236-22	Design Within Funding Limitations	4-12
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19.1005(a)(3)	Designated industry group for SB Demo Prog.	2-29
36.604(c)	Distribution and use of Performance Evaluation Reports	5-53
32.903	Due dates for making payments in 52.232-10	See 52.232-26
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36.602-3	Evaluation Board functions	3-26
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46.801(a)(4)	GFP loss liability subpart does not apply to A/E	-
36.606(f)	Going to next firm on selection list if negotiations fail.	4-33
36.601-4(a)(3)	Incidental Services defined	2-6
27.203-1(b)(5)	Indemnification clause not needed for A/E	
36.605	Independent Government estimate over \$25K	4-14
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ALPHABETICAL LISTING OF SPECIFIC FAR REFERENCES TO A/E.

FAR	TOPIC	TEXT
15.812-2(a)(2)	Integrity of Unit Prices clause (52.215-26): Don't use	-
36.608	Liability of A/E firms for design deficiencies	5-32
43.000	Modifications policy (Part 43) applies to A/E	-
53.215-1	Negotiation forms not used in A/E	-
36.606(a)	Negotiations with most preferred firm	3-31
52.227-2	Notice and Assistance ... : flow down to subcontracts	
17.200	Options Subpart does not apply to A/E	-
27.304-3	Patent rights clause for A/E R & D	
27.304-3(b)(2)	Patents clause not needed for "standard types ..."	
27.201-2(b)	Patents: Alt. I for 52.227-1 for R & D	
27.201-2(a)	Patents: Authorization & Consent clause 52.227-1	
27.202-2	Patents: Notice and Assistance ... clause 52.227-2	
52.232-10	Payments under F-P A/E Contracts	4-11, 5-29
32.111(d)(1)	Payments under F-P A/E Contracts clause: 52.232-10	4-11
32.908(a)	Payments: If 52.232-10 is used, then include 52.232-26	-
36.702(c)	Performance evaluation, SF 1421 use	See 36.604
36.000 & 36.101	Policies of Part 36 apply to A/E	-
3.104-7(d)(4)iv	Post-empl. restriction when Substituting for A/E sub.	See 52.204-2
36.604(a)	Preparation of Performance Evaluation Reports	5-51
53.236-2	Prescribed forms for use in A/E	-
36.601-4(a)(1)	Professional A-E services defined by State law	See 36.102
22.1102	Professional Employee definition	1-7
32.905(f)(5)	Progress payment date in receiving report	See 52.232-10
36.209	Prohibition on construction contract going to design firm	4-32
36.606(c)	Prohibition on construction contract going to design firm	See 36.209
52.232-26	Prompt Payment for F-P A/E	4-13
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36.601-1	Public announcement of A/E contracts	3-13
5.203(c)	Publicizing notice: 30 days response time	3-21
36.601-3(c)	Registered A/E not required: Use Parts 13, 14, 15	2-8
36.607	Release of information on selected firm	3-32
36.609-4	Require. for Registration of Designers clause: 52.236-25	2-6
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52.236-23	Responsibility of the A/E Contractor	4-8
36.609-2(b)	Responsibility of the A/E Contractor clause: 52.236-23	See 52.236-2a
36.609-2(a)	Responsibility of the A/E to redesign at no cost for errors	4-8
36.604(b)	Review of Performance Evaluation Reports	5-52
36.606(b)	RFP doesn't preclude modern design methods.	4-5
27.409(a)(1)(iv)	Rights in Data-Special Works clause 52.227-17 for A/E	
27.409(o)	Rights in Data-Special Works clause 52.227-17 for A/E	
53.214	Sealed Bidding forms not used in A/E	-

ALPHABETICAL LISTING OF SPECIFIC FAR REFERENCES TO A/E.

FAR	TOPIC	TEXT
4.404(c)	Security Req., Alternate II clause: (52.204-2)	4-13
52.204-2	Security Requirements: Use Alt. II	4-13
36.602-4	Selection authority	3-30
36.602-1(a)	Selection criteria	3-16
6.102(d)(1)	Selection of A/E sources is competitive under PL 92-582	1-3
53.236-2(a)	SF 252 - Architect-Engineer Contract	4-5
53.236-2(b)	SF 254 - Architect-Engineer & Related Services Quest.	2-14
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53.236-2(d)	SF 1421 - Performance Evaluation (Architect-Engineer)	5-48
36.702(b)	SFs 254 & 255 use	1-8
19.102(g)(3446)	Size Standard: Arch. & Ornamental Metal Work	N/A
19.102(g)(8712)	Size Standard: Architectural Services	2-29
19.102(g)(8711)	Size Standard: Eng. Services - Naval Architecture	N/A
36.602-5	Small Purchase short selection procedures	3-33
36.601-3(a)	Source selection by procedures in 36.6 not 13, 14, 15	-
36.601-3(b)	SOW includes both A/E and other services	2-7
44.201-3(a)	Subcontract consent required for A/E	5-7
44.204(d)	Subcontractors and Outside Assoc. 52.244-4 in A/E	See 52.244-4
44.204(a)(2)(ii)	Subcontracts (F-P Contracts) 52.244.1 not used in A/E	-
52.244-4	Subs and Outside Associates and Consultants	4-13
36.601-4(a)(4)	Surveying and Mapping Services defined	2-7
52.212-12	Suspension of Work	4-10
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5.207(b)(4)1	Synopsis Format: Action Code	3-22
5.207(g)(1)	Synopsis Format: Code “C” for A/E Services	1-9
5.207(c)(2)(xi)	Synopsis Format: Item 17	3-22
5.205(d)	Synopsizing thresholds	3-20
49.503(a)(1)	Term. (CR) (52.249-6: don’t use in A/E	-
49.502(a)(1)(iii)	Term. for C ...(52.249-1) not used in A/E	-
49.502(b)(1)(iii)	Term. for C ...(52.249-2) not used in A/E	-
52.249-1	Term. for C of Govt. (F-P)(Short Form): Don’t use	-
52.249-2	Term. for C of the Government (F-P): Don’t use	-
52.249-7	Termination (F-P A/E)	4-9
49.503(b)	Termination (F-P A/E) 52.249-7 used in A/E contracts	4-9
12.104(a)(1&2&3)	Time of Delivery clauses (52.212-1,2): Don’t use in A/E	-
19.502-2(a)	Total set-asides include A/E	2-29
15.406-1(a)(2)	UCF exemption for A/E contracts	4-5
48.101(b)(2)	Value engineering sharing not permitted in A/E	-
48.104-1(c)	Value engineering sharing not permitted in A/E	-
48.201(f)	VE --A/E (52.248-2): Use in A/E rather than 52.248-1	See 52.248-2
48.102(a)	VE provisions are to be included in A/E contracts	-

ALPHABETICAL LISTING OF SPECIFIC FAR REFERENCES TO A/E.

FAR	TOPIC	TEXT
48.201(f)	VE --A/E (52.248-2): Use in A/E rather than 52.248-1	See 52.248-2
48.102(a)	VE provisions are to be included in A/E contracts	-
52.248-2	VE-A/E	4-13
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52.236-24	Work Oversight in A/E Contracts	4-13
36.609-3	Work Oversight in A/E Contracts clause: 52.236-24	See 52.236-24

APPENDIX D

**GLOSSARY OF ARCHITECT-ENGINEER
CONTRACTING TERMS**

GLOSSARY OF ARCHITECT-ENGINEER CONTRACTING TERMS

The following glossary does not define terms; rather, it explains or characterizes them within the general context of their intended use. There are many terms that reflect the construction management environment, and most of them are subject to coloring by circumstances and application. Very few of them are precise in meaning. Therefore, the reader is cautioned to remember that the terms are presented in glossary rather than in dictionary form.

A-E CONTRACT

FAR 36.102

An A-E contract is a contract for professional services of an architectural or engineering nature that are normally provided by a person licensed, registered, or certified to provide such services. A-E contracts also include certain other professional or incidental services required in conjunction with professional A-E services or that logically or justifiably should be done by members of the architectural and engineering professions.

A-E FIRM

FAR 36.102

An individual, partnership, corporation, association, or other legal entity permitted by law to practice the professions of architecture or engineering.

ACASS

A-E Contract Administration and Support System is a Corps of Engineers-wide automated system used to store SF 254 information, contract awards, and past performance data on Architect Engineer firms.

AIA

American Institute of Architects. A professional organization for A-Es.

ARCHITECT-ENGINEER LIABILITY

FAR 36.608

A cost liability (resulting from errors or deficiencies in designs furnished under its contract) which an architect-engineer may incur from either failure to meet the standard of care reasonably associated with the architect-engineer profession or breach of a contractual duty to exercise skill and care in performing services.

ARCHITECT

A professional who plans and designs private residences, office buildings, theaters, public buildings, factories and other structures, and organizes services necessary for construction. May confer with other consultants regarding feasibility studies, financial analysis, site analysis, etc., in order to accomplish the design.

ARCHITECTURAL PLANS

That part of the A-E's design work including floor plans, stairways, electric passenger elevators, electrical utility service platform elevators, toilet rooms, partition types, fire walls, caulking and sealing joint types, pedestal-type access floorings, room finishes, colors and door and window details.

BROOKS ACT	Public Law 92-582. An amendment to the Federal Property and Administrative Services Act of 1949 which prescribes procedures for the selection of A-Es on the basis of demonstrated competence and qualifications.
CADD	Computer Aided Design Drawings which are produced on a computer and give the designer great flexibility.
CONSTRUCTIBILITY REVIEW	An interdisciplinary coordination review technique, usually performed by an independent contractor to determine that a normal construction contractor can construct (a) as designed, (b) on the specific site proposed, and (c) within the time allowed in the specification.
CONSTRUCTION MANAGEMENT	A term describing a management process meaning different things to different agencies because it is flexible in its use. It usually refers to an individual, organization, or joint venture which, under contract, will provide management services to suit an agency's needs, ranging from managing the design effort through completion of the construction of a project.
CONTRACTOR QUALITY CONTROL	Contractor is responsible for quality control in design, technical accuracy, and coordination of all services in an A-E contract.
DESIGN BREAKAGE	The total cost of (a) designs or portions of designs, studies or other projects, funded with planning and design funds, started and canceled prior to completion, for whatever reason, including both in-house and contract work, and (b) designs or portions of designs completed but not expected to be advertised for construction. The cost of design or a portion of a design which has been completed and shelved temporarily because of deferral of the construction project to a subsequent year is NOT breakage, but becomes breakage when, and if, the project is canceled rather than deferred.
DESIGN-BUILD	The term "design-build" refers to a project delivery system in which a single entity provides all services necessary to design and assemble a structure or a facility.
DESIGN COSTS	Refers to the design services portion in an A-E proposal, i.e., costs relating to the design, preparation of working drawings and specification. Design costs are subject to the statutory cost limitation of 6% of the estimated cost of the construction.
DESIGN DEFICIENCY	A design deficiency occurs when the plans and specifications prepared by the A-E, if followed properly by the construction contractor, will not produce the end product specified in the scope of the A-E contract. It may occur because of an error, omission or inadequacy.

DESIGN WITHIN FUNDING LIMITATIONS <u>FAR 36.609-1</u>	Refers to a mandatory clause in an A-E contract which requires the A-E to design a project within an amount agreed to during negotiations that will be the estimated construction contract price for the project. When bids or proposals for the construction contract are received that exceed the price, the contractor must redesign the project to make it fit within the specified price.
DETAILED ANALYSIS METHOD OF ESTIMATING	Estimates are made of the man-hour requirements and type of services or personnel (architectural, civil, structural, mechanical, electrical, drafting, estimating, and specification writing), for each phase of services in a project.
DRAWINGS <u>FAR 36.102</u>	Either "as-built" or "record" drawings which are submitted by a contractor or subcontractor at any tier to show the construction of a particular structure or work as actually completed under the contract.
ECC	Estimated Cost of Construction. Means the cost limit to which the A-E's design efforts toward production of plans and specifications is bound.
ELECTRICAL DESIGN	That part of the work which includes the development of one line drawings, schedules, plans, and miscellaneous detail drawings to allow the construction contractor to install complete lighting, power, fire alarm, and lighting protection systems.
ENGINEER	A term applied to persons who possess educational qualifications, work experience, and legal certification where required as established by engineering boards or schools, licensing authorities, etc.
EVALUATION BOARD <u>FAR 36.602-2</u>	When acquiring A-E services estimated to cost \$25,000 or more under the Brooks Act, an agency shall provide for one or more permanent or ad hoc architect-engineer evaluation board(s) to review and rank prospective A-E's qualifications. Boards are composed of members who collectively have experience in architecture, engineering, construction, and those having experience in Government acquisition matters.
FEE <u>15.903(d)(1)</u>	A dollar amount subject to a statutory restriction of 6% of the estimated cost of construction, which constitutes payment for design services relating to plans, drawings, and the specification developed by the A-E.
GUIDE SPECIFICATIONS	Agency specific specifications to be used by the A-E as guidelines relating to standards, elements of design, etc. Guide specifications also prevent duplication of work and discourages "gold plating."
HVAC	Heating, Ventilation and Air Conditioning System.

ICR	Interdisciplinary Coordination Review: A logical, systematic comparison of plan sheets and specification sections produced by two or more design disciplines (architectural, structural, electrical, etc.) to identify and eliminate the inevitable conflicts in a set of plans and specifications that arise because each major section is designed, drawn or written by a different individual.
IQ CONTRACT FOR A-E	A contract that provides for an indefinite quantity of design services which are within specifically stated limits, and are similar in design requirements. Usually limited to only a few disciplines, and primarily used for small projects.
INCIDENTAL SERVICES <u>FAR 36.601-4(a)(3)</u>	Types of services which are considered minor to some part of the A-E services, but not incidental to an A-E project.
IN-HOUSE DESIGN	Design services to be performed by Government engineers as opposed to awarding a contract to outside sources.
LESSENERED VALUE	Terminology applying to A-E liability when in some instances of deficient performance by an architect-engineer, it is impracticable to remedy the error. In such cases, the damage to the Government is the difference in value of the facility as it exists and what its value would have been had the deficiency not occurred.
LETTER OF DEMAND	A letter directed to an architect engineer charging negligent performance or breach of contract requirements and requesting payment for damages, signed by the Contracting Officer.
LOST DESIGN EFFORT	Any design which has been accomplished, but which must be scrapped and redone prior to award of a construction contract because of changes in the scope of the project, changes in criteria, or any other changes which invalidates completed portions of the design.
MARKET RESEARCH	The terminology used in relationship to A-E services pertains specifically to the geographical location of the project to be designed, and the number of firms who possess the capabilities to perform an excellent design within the market region.
MECHANICAL DESIGN	Includes providing potable water for drinking fountains, break/vending rooms, toilet rooms, fire protection systems, sanitary sewer systems, floor drains, air conditioning systems, etc.
OPTION	In A-E contracts, an option is a unilateral right of the Government to obtain additional pre priced services called for by the contract, or to extend the term of the contract.
OVERLAY	A method of ICR using a light source (light table or window), the plan sheet for one discipline may be placed over that of another discipline for a given segment of a structure.

PARTNERING	Partnering is the creation of a Government-contractor relationship that promotes achievement of mutually beneficial goals, involving an agreement in principle to share the risks involved in completing a project, and to establish and promote a nurturing partnership environment.
PCAS	Post construction award services, i.e., construction contract support services, field consultation, field verification, value engineering, Title II services.
PERMITS	The process of obtaining approvals for designing and/or construction of a facility which are issued by county, state, or Federal agencies.
PHASED DESIGN/ CONSTRUCTION	The overlapping of design and construction activities in a carefully planned, executed, and controlled order to permit the simultaneous construction of early-delivery elements while late-delivery elements are still under design.
POTENTIALLY RECOVERABLE DAMAGES	Terminology used in assessing potential A-E liability meaning that costs that may be incurred by the Government as a result of performance or design deficiency as a result of performance or design deficiency that are in excess of what the costs would have been had the deficiency not occurred.
PREDESIGN PHASE SERVICES	Services involved in the development of preliminary information and requirements, or the resolution of specific problems which will permit design to proceed, i.e., feasibility studies, environmental statements, energy studies, master planning, programming, investigations, analysis, site selection or measured drawings.
PRESELECTION BOARD	When more than one board is utilized in the A-E selection procedure, the preselection board's duties range from only identifying highly qualified firms to that of slating 5 or 6 firms in order of preference.
PROFESSIONAL LIABILITY INSURANCE	Insurance for A-E's which protects against damages to clients or third parties resulting from professional errors or judgments.
PROFESSIONAL SERVICES <u>FAR 36.601-4(a)(1)</u>	Types of design services defined by state law of an architectural or engineering nature which are required to be performed, or approved by a person licensed, registered, or certified to provide such services.
PROJECT ENGINEER	Generally, within Government, a person who is responsible for coordination with the architect and engineers, scheduling information, shop drawings and details, supervision of field testing, etc. Project engineers are assigned to specific projects.

PROJECT MANAGER	The project manager is a Government official who is responsible for the day-to-day management of the project. It is the project manager's responsibility to plan, organize, and control the project activities toward achievement of both the project goals and budget constraints. The project manager is the coordinator between the client, construction/design and contracting personnel.
PROJECT SUPERINTENDENT	The person responsible for the day-to-day field supervision of the construction trades and personnel.
PROJECT SPECIFIC INDEFINITE QUANTITY CONTRACT	A specific project is identified in the CBD synopsis, noting that other projects of a similar nature which will require the same professional skills will likely be awarded within a specific period, usually one year.
QUALIFICATION DATA FILE <u>FAR 36.603(c)</u>	Refers to a file maintained for A-E firms which includes copies of submitted SF 254s and 255s. Data shall be classified by location, specialized experience, professional capabilities, and capacity.
REAL PROPERTY	Means land and rights in land, ground improvements, utility distribution systems, buildings, and other structures.
REGISTRATION <u>FAR 52-236-25</u>	The design of architectural, structural, mechanical, electrical, civil, or other engineering features must be accomplished or reviewed and approved by A-Es who are registered to practice in the particular professional field involved. In order to be registered in any state, the A-E must pass a rigid examination to become a registered professional engineer.
SCOPE OF WORK	Synopsis of required A-E services and includes features which are necessary to define the uniqueness of a particular project. Also refers to specific professional services required of the A-E.
SELECTION <u>FAR 36.602-4</u>	The act or process of being selected as an architect-engineer firm to perform design services. A process that results in the survival of some individuals, but not of others.
SELECTION BOARD	A board appointed to convene in formal session and to conduct a review of all pertinent data submitted by architect-engineer firms that have expressed an interest in being considered for a project that has been publicly announced by the Government. The board is composed of members who, collectively, have experience in architecture, engineering, construction, Government contracts and related acquisition matters.
SELECTION CRITERIA <u>FAR 36.602-1(a)</u>	Criteria upon which agencies evaluate each potential A-E in terms of expertise, experience, and qualifications.
SERVICE SPECIFIC INDEFINITE QUANTITY CONTRACT	A-E services required for a specific type of work, i.e., roof repairs, boiler repairs, site surveys, where location is not critical to the selection evaluation.

SHOP DRAWINGS <u>FAR 36.102</u>	Drawings submitted by the construction contractor or a subcontractor at any tier or required under a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, (2) the installation (i.e. form fit, and attachment details) of materials or equipment, or (3) both.
SITE REMEDIATION	The preparation of the surface and subsoil at a site to obtain the information for design.
SLATE	A term used meaning preselection in the A-E selection process. Sometimes referred to as "short listing" because of the need to select a slate consisting of three to five or more of the most highly qualified A-E firms from which a selection, in the order of preference, may be made.
SF 254 <u>FAR 36.603</u>	A-E and Related Services Questionnaire: Provides data about an A-E firm's overall capabilities in all aspects. Sometimes described as a resume of the firm.
SF 255 <u>FAR 36.603</u>	A-E and Related Services Questionnaire For Specific Project: Provides data about an A-E firm's capabilities as they relate to a specific project. Use of form is mandatory for all projects estimated to exceed \$25,000.
SF 252 <u>FAR 36.702(a)</u>	A-E Contract: Form used to award contracts for architect engineer services.
SF 1421 <u>FAR 36.604(a)</u>	Performance Evaluation (Architect-Engineer). A form used to evaluate an A-E's performance.
STRUCTURAL DESIGN	Structural effort includes the development of structural design criteria for loadings, materials, allowable stresses and interfaces. The development of space layouts for new, modified, or relocated structures, demolition drawings, and design analysis, drawings and specifications for construction of structures.
SUBMITTALS	During performance an A-E is required to submit all design drawings and data at various intervals (usually three) which are agency specific. The work at each stage is reviewed and approved by the Government. Submittals include other documentation, i. e., quality control plan, network schedules, schedule of prices, safety plan, shop drawings, and operation and maintenance manuals for the project. The A-E's performance is judged on the quality and timeliness of its submittals.

TECHNICAL DIRECTION	A term defined as a directive to the architect-engineer within the definition and requirement of the scope of work that fills in details or otherwise completes the general description of work or information items, shifts emphasis among work areas or tasks, or otherwise furnishes guidance to the architect-engineer. To be valid it must be issued in writing and be consistent with the general scope of the contract.
TECHNICAL DIRECTION	Technical direction is by definition, guidance that fills in details or otherwise completes the general description of work or information items, shifts emphasis among work areas or tasks, or otherwise furnishes guidance to the A-E.
TRADITIONAL METHOD OF CONTRACTING	Refers to the standard procedure of issuing A-E contracts, whereby a contract is let for design services under the Brooks Act procedures, and upon completion is followed by the issuance of another contract for construction.
TURNKEY	Turnkey is a description of a method of contracting, whereby the contractor is responsible for financing, designing, building, and sometimes management of the property for the Government, turning over the keys when it is ready for acceptance by the Government. It is used primarily in housing projects.

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